SAUTER

# SAUTER EYW 300 novaWeb Programming

**Programming manual**

7001050003 B

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# 1 Introduction

novaWeb is ain embedded web server with which you can present your installation graphically using a standard web browser. novaWeb scans the novaNet for connected automation stations and reads their content. On the basis of these extracted data, a series of web pages – such as an alarm list, an overview of control loops, a list of installation-specific data points etc. – are automatically created. In addition, it is possible to add function descriptions and schematics, or to create customer-specific menus with links to other devices (e.g. web servers, web cams) or to documents (e.g. manuals).

This manual describes how to: program the automation station in order to attain well-structured web pages; and how to customise these web pages by adding individual menus, symbols, links and documents.

# 2 novaWeb Documentation

According to the needs of the different users, the documentation for novaWeb has been split up into several manuals:

| Order Number | Title | Target Audience | Required Operating Level | Content |
|---|---|---|---|---|
| 7001049 | User Manual | End User | Guest or User | Standard user operations like<br>Connecting to the installation<br>Visualisation<br>E-mail reception |
| 7001057 | Quick Start Guide | Project or Programming Engineer | Any | Basic Connection Set-up<br>Power Supply, novaNet & Ethernet |
| 7001056 | Configuration Manual | Project Engineer | System Maintenance | Connections<br>TCP/IP<br>Dial-up<br>Advanced Features<br>Firewall Settings<br>Dynamic DNS<br>E-mail Settings |
| 7001050 | Programming Manual | Programming Engineer (CASE FBD and Engine) | Service | Programming<br>Content of HTML pages<br>Card code rules<br>House address structure<br>Extensions<br>Customisation<br>Icons, Menus, Schematics,.. |

On top of these manuals several other sources of information are available via the Sauter Intranet:

- Product Data Sheet PDS (PDS 92.720)
- Product Information PI
- FAQ (Frequently Asked Questions)
- Application Report

# 3 Requirements

## 3.1 Web Browser

A standard HTML 4.01 compliant Web Browser which supports frame based pages is needed for optimal access to novaWeb pages.

For standard Windows PCs we recommend the current versions of MS IE V6.0 (or higher) or Mozilla V1.7 (or higher).

The access via a smart phone or a PDA is also possible. Due to the relative small size of the screen of these devices we recommend to use a special entry page without frames or to bookmark the content page as one of your favourites (for more information see below).

For the session management Cookies must be enabled. Please refer to the user manual for more details about setting of cookies, language settings and access to your site.

## 3.2 FTP Client

A standard FTP client is needed for transferring user specific menus and modified alarm texts to the novaWeb Server. Function descriptions or images can also be transferred via FTP. Even if it is possible to ftp with standard Windows tools we recommend the use of a professional ftp client like Filezilla (http://filezilla.sourceforge.net/). Make sure the firewall of your novaWeb server (as well as any proxies) is set to allow ftp communication (settings/network/firewall: basic security) and that you use passive mode.

For security reasons, FTP access has been replaced by an encoded SSH access (since 2.8.1). For file transfer, Filezilla can still be used, but TCP port 22 must be used. Filezilla is freeware and available on the internet. It can be installed as a portable application straight onto a USB stick, from where it can be launched (http://portableapps.com).

The following access data are required for novaWeb.
User name: sautersystem; password: sl@sauter.

## 3.3 CASE Builder

For efficient engineering we recommend to set-up your project with a current version of CASE Builder. Please check with your national support if a special CASE library exists which already includes novaWeb data point settings.

## 3.4 CASE Engine

Especially in the case that you don’t work according to the naming standard you should use a current version of CASE Engine for programming the AS.

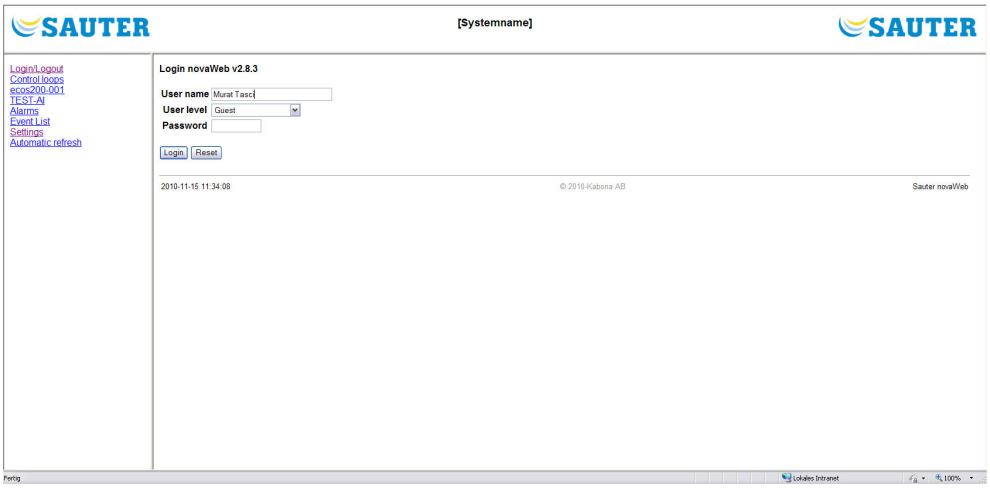
In existing projects, the house addresses can be changed in CASE Engine's table view.

# 4 Layout

novaWeb provides all information within three frames:

**Header**

Navigation Main Window

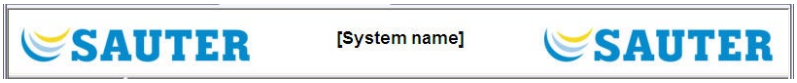



The header shows the site's name and some pictures and links.

The navigation frame lists all available links (web pages).

The contents of the main window depends on the selection in the navigation frame on the left.

## 4.1 Header (top)



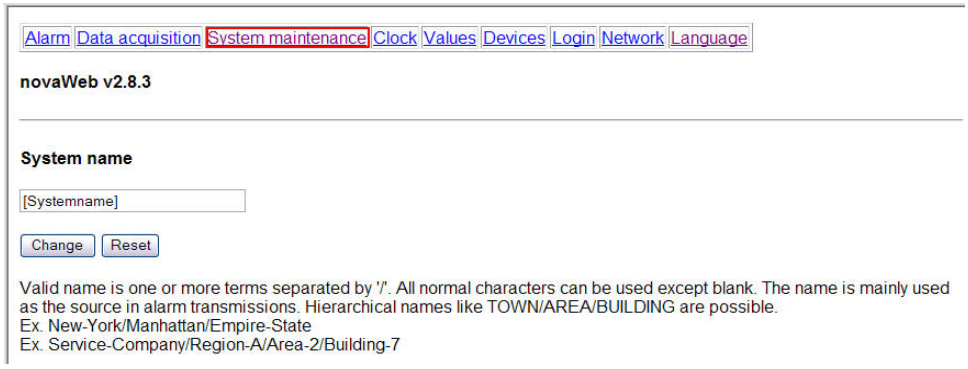

The header consists of three parts: the icon on the left, the system name and the icon on the right (if it exists).

### 4.1.1 System name

In the middle of the header frame the system name is shown as it is specified under settings/system name:

Select the 'Settings' menu item in the left frame and then the 'Maintenance' sub-menu item in the main window to view the following screen.

Settings, System name




A valid name is specified by one or more terms separated by a slash '/'. All normal characters can be used except blank.

Hierarchical names like TOWN/AREA/BUILDING are possible.

Ex.: New-York/Manhattan/Empire-State

Ex.: Service-Company/Region-A/Area-2/Building-7

Besides as page header the system name is also used as the source in alarm transmissions.

### 4.1.2 Icons

The icons on the left (left.gif) and on the right (right.gif) can be exchanged to any other image (which fits into the header). Please refer to the chapter customisation of the header for more details.

The left icon also contains a link to your Sauter's support page.

### 4.1.3 Navigation (left)

novaWeb creates the contents of the navigation frame automatically according to the data point database it created after reading the AS content. If you prefer a customised navigation bar you can create it yourself. You just have to name it "menu.html" and then download it (see the 'Adaptation' section in this manual).

### 4.1.4 Automatic navigation bar

If no menu exists the novaWeb creates a standard menu automatically with all standard entries (Login/Logout, Control Loops, Alarms, Events, Service and Settings) as well as one link for each configured installation. An installation is defined by the first item of your house address. This means all data points having the same first part as house address are considered one installation and are therefore shown on one page which is called the system or installation view. If no individual menu has been set up, novaWeb automatically creates a default

menu comprising these standard items: Login/Logout, Alarms, Events, Settings. If you keep to the house address structure which ensures optimal presentation of the plant by novaWeb, the Control Circuit item and a link to every plant are also added to the default menu. The new appearance of the default menu is shown below. For more details on the structure of the house address to ensure optimal presentation of the plant by novaWeb, consult the section on ‘House address structure to optimise presentation’.

| Navigation Link | Display in Main Frame |
|---|---|
| Login/Logout | Login and Logout |
| Control Loops | Overview of Control Loops |
| Air Handling Unit 01 | Installation view<br>- Number of installations according to your site<br>- Access to function descriptions and schemas |
| Air Handling Unit 02 | |
| Chiller | |
| Heating | |
| Alarms | Alarm list |
| Events | Event logs |
| Service | Service list (AS oriented) |
| Settings | Configuration pages |

The links to Login/Logout, Control Loops, Alarms and Events are shown for each user. Between Control Loops and Alarms you will see a list of configured installations (e.g. Air Handling Unit 01, Chiller Basement,..) depending on your specific installation. The Settings page is shown for users with the appropriate user rights only.

## 4.2 Main (right)

Depending on the selection in the navigation frame you will see the login/logout, the Control Loops, any installation, ...page as indicated above.

Layout

# 5 Display of data points

Not only the presentation of the data point but the whole set-up of the novaWeb pages (all html pages, the internal databases,..) depends on set-up of the house address. Sections 4.1 to 4.5 explain the house address structure that must be present, and which properties the data points must have so as optimise presentation of the system by novaWeb. There is a description of the way these plants are presented.

The section on ‘Divergent house address structure’ describes how plants with a divergent house address structure are displayed.

## 5.1 House address structure for optimised presentation

To optimise the on-screen presentation of the plant with novaWeb, the house address should ideally comprise three sections:

| Part 1 | Part 2 | Part 3 |
|---|---|---|
| System (or installation) | Function (or functional group) | Point (data point and in some cases also the sub-data point) |

### 5.1.1 System (or installation)

All house addresses with the same system part are considered to belong to the same installation and therefore grouped together on one web page (the so called system view).

### 5.1.2 Function (or functional group)

Within an installation (sharing the same first part) all data point with the same “Function” part are grouped together whenever possible. See also the chapter Working with FBD.

### 5.1.3 Point (data point and sub-data point)

All data points are indicated according to the naming standard.

## 5.2 House address separators

These three house address parts have to be separated by a so called separator. It is recommended to use a dot (.) as separator. This character is always used internally by the novaWeb as separator.

Alternatively a hyphen (-) or a slash (/) can be used as separator in the AS. However for the novaWeb they will be replaced by a dot (.)

## 5.3 House address characters

Allowed characters are a-z, A-Z, 0-9 and the above mentioned separators (.-/).

Any other characters like spaces ( ), special characters (ä,à,é,ö,..) are replaced by a hyphen (-).

## 5.4 Data types

novaWeb distinguishes the following data point types:

| Type | Description | Treatment and Display |
|---|---|---|
| ALARM | Alarm | In general an alarm is indicated as „Alarm“ or „OK“. In the alarm list the „Alarm“ condition is further distinguished as „Acknowledge“ (which means not yet acknowledged) or „Active“ (which means acknowledged but the alarm condition still active). |
| BOOL | Boolean value | Boolean values are indicated as „On“ or „Off“. |
| IVAL | Integer value | Integer values are only used for internal points (like selected language) and will not be further described. |
| FVAL | Floating point value | All analogue values are treated as floating point values.<br>Up to 999999 they are indicated as normal numbers. Beginning from 1000000 they are shown in exponential style (e.g.2.74724e+06).<br>In general they are shown rounded up to 1 digit after the decimal symbol (e.g. 0.05 is shown as 0.1).<br>If a dimension has been specified it will be shown to the right of the value. |
| SW | Switch or multi-stage (digital) value | Multi-stage (digital) values can indicate up to 6 levels (stage 1 to stage 6). As a command it can also be positioned to „Auto“ mode. If no level is indicated it will show „Off“. Only the text for the 6 levels will be taken from the AS. |
| TIME | Time value | A time value can be shown in seconds (default, indicated as „s“), minutes (m) or hours (h). To send a value you just add the corresponding unit (s,m or h) like 12m. Any other character will be ignored, and the value treated as seconds. |

## 5.5 Naming convention to optimise presentation

The third part (or extension) of the house address defines how the data point is presented:

| Extension | Data point | Data Type | Generation | Function Block | Function Block Parameters | Installation View | Service View | System Maintenance View |
|---|---|---|---|---|---|---|---|---|
| ***tc*** | Time schedule | BOOL | AS | DI_Soft | | ***Yes*** | ***No*** | ***Yes*** |
| ***al*** | Alarm | ALARM | AS | BI, BI_ Soft | fAISt = Alarm | ***Yes [di, do, ms, cm]*** | ***No*** | ***Yes*** |
| ***di*** | Digital Indication | BOOL/ SW | AS | BI, BI_ Soft, DI, DI_Soft, DO | BI & BI_Soft : fAISt = Status | ***Yes [ms]*** | ***No*** | ***Yes*** |
| ***do*** | Digital Order | BOOL | AS | DO, DIA_ Soft | | ***Yes [di]*** | ***No*** | ***Yes*** |

| Extension | Data point | Data Type | Generation | Function Block | Function Block Parameters | Installation View | Service View | System Maintenance View |
|---|---|---|---|---|---|---|---|---|
| ***sw*** | Multi-stage Switch | SW | AS | DO, DIA_ Soft | | ***Yes [di, do]*** | es ≠ [di, do] | ***Yes*** |
| ***pb*** | Push Button | BOOL | AS | DIA_Soft | | ***Yes [di, do]*** | Yes ≠ [di, do] | ***Yes*** |
| ***ms*** | Main Sensor | FVAL | AS | AI, AI_ Soft | | ***Yes*** | ***No*** | ***Yes*** |
| ***sp*** | Set point | FVAL | AS | AIA_Soft | fSP | ***Yes [ms, di]*** | x | ***Yes*** |
| ***sp<N>*** | Multiple Set points | FVAL | AS | AIA_Soft | fSP | ***Yes [ms]*** | x | ***Yes*** |
| ***Cs*** | Compen-sa-tion sensor | FVAL | AS | AI, AI_ Soft | | ***Yes [ms]*** | ***No*** | ***Yes*** |
| ***cs<N>*** | Multiple Compen-sa-tion sensors | FVAL | AS | AI, AI_ Soft | | ***Yes [ms]*** | ***No*** | ***Yes*** |
| ***csp*** | Calcula-ted setpoint | FVAL | AS | AI_Soft | | ***Yes [ms]*** | ***No*** | ***Yes*** |
| ***csp<N>*** | Multiple Calcula-ted Set -points | FVAL | AS | AI_Soft | | ***Yes [ms]<N>*** | ***No*** | ***Yes*** |
| ***sp.p<N>*** | Compen-sation curve with 2 to 6 break points | FVAL | AS | AIA_Soft | | ***Yes [ms] over csp*** | ***No*** | ***Yes*** |
| ***sp.x<N>*** | Compen-sa-tion cur-ve x-axis | FVAL | AS | AIA_Soft | | ***Yes [ms] over csp*** | ***No*** | ***Yes*** |
| ***sp.y<N>*** | Compen-sa-tion cur-ve y-axis | FVAL | AS | AIA_Soft | | ***Yes [ms] over csp*** | ***No*** | ***Yes*** |
| ***sp.eco*** | Economy timer | TIME | AS | AIA_Soft | | ***Yes [ms] over csp*** | ***No*** | ***Yes*** |
| ***ca*** | Averaged compen-sation value | FVAL | AS | AI_Soft | | ***Yes [ms] over csp*** | ***No*** | ***Yes*** |
| ***ls*** | Limit sensor | FVAL | AS | AI, AI_ Soft | | ***Yes [ms}*** | ***No*** | ***Yes*** |
| ***out*** | Output | FVAL | AS | AI_Soft | | ***out*** | ***Yes*** | ***Yes*** |
| ***out<N>*** | Se-quence outputs | FVAL | AS | AO | | ***Yes [ms}*** | ***No*** | ***Yes*** |

Display of data points

| Extension | Data point | Data Type | Generation | Function Block | Function Block Parameters | Installation View | Service View | System Maintenance View |
|---|---|---|---|---|---|---|---|---|
| ***cm*** | Common Measurement | FVAL | AS | AI, AI_ Soft | | ***Yes*** | ***No*** | ***Yes*** |
| ***met(.dy)*** | Derivation Meter | FVAL | AS (met)/novaWeb (dy) | AI, AI_ Soft | | ***Yes [met}*** | ***No*** | ***Yes*** |
| ***rt*** | Runtime | FVAL | novaWeb | - | | ***Yes*** | ***No*** | ***Yes*** |
| ***rt.mx*** | Runtime Maximum | FVAL | novaWeb | - | | ***No*** | x | ***Yes*** |
| ***rt.pb*** | Reset Runtime Push Button | BOOL | novaWeb | - | | ***Yes [rt]*** | ***No*** | ***Yes*** |
| ***rt.al*** | Runtime Alarm | ALARM | novaWeb | - | | ***Yes [rt]*** | ***No*** | ***Yes*** |
| ***mn*** | Minimum | FVAL | AS | AIA_Soft | | ***-*** | x | ***Yes*** |
| ***mx*** | Maximum | FVAL | AS | AIA_Soft | | ***-*** | x | ***Yes*** |
| ***par.kp*** | Proportional Band | FVAL | AS | AIA_Soft | | ***-*** | ***No*** | ***Yes*** |
| ***par.ti*** | Incremental Time | TIME | AS | AIA_Soft | | ***-*** | ***No*** | ***Yes*** |
| ***dec*** | Decrement | SW | AS | DIA_Soft | | ***No*** | | ***Yes*** |
| ***inc*** | Increment | SW | AS | DIA_Soft | | ***No*** | | ***Yes*** |

### 5.5.1 Extensions

***<N>*** means a value from 1 to 6. E.g. ***cs<N>*** means you can specify up to 6 compensation sensors.

### 5.5.2 Data point

The column data point explains the usual or typical use of the extension. This description is not used anywhere within the html pages. Therefore e.g. the extension ***mn*** could also be used for something else than the minimum value of a control loop.

### 5.5.3 Generation

All data points marked “AS” have to be generated (via CASE Engine) in the AS. The subdata points marked with “novaWeb” are generated automatically by the novaWeb as soon as the according main data point (e.g. ***rt***) has been generated in the AS.
The extension “***met***” is special since a data point with this extension has to be created in the AS, however the novaWeb will not show the data point itself but a derived data point with the extension “***met.dy***” which it generates itself.

### 5.5.4 Function Block

This column lists the recommended function block(s) which should be used together with the extension. In most cases similar function block are possible (e.g. AI_Soft instead of AIA_Soft). If a function block does not correspond at all to the extension (e.g. digital instead of analogue value) this data point will not be shown or will not work properly.

### 5.5.5 Function Block Parameters

If any parameter must be set (e.g. the alarm indication fAISt) this is mentioned in the parameter column.

### 5.5.6 Installation View

The installation view is a kind of structured list. This means the data points are shown grouped together in functional groups (second part of the house address) and according to their function (third part of the house address) in a certain position. Therefore a data point is only shown in the installation view if it belongs to the same group as a major data point which is indicated in this column. As an example a set point (named ***sp***) is only shown in the installation view if it belongs to the same group (this means first and second part of the house address are the same) as a main sensor (***ms***).

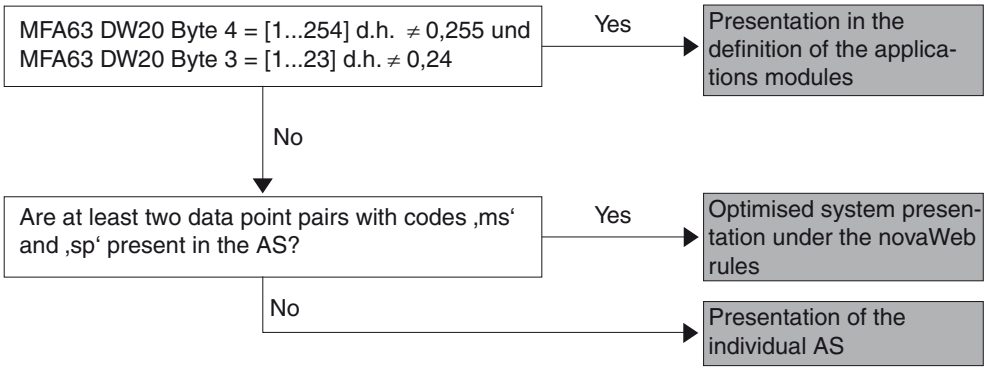
Furthermore a data point can be assigned to a assigned primary data point (which is a primary data point assigned to a mayor data point). In this case the corresponding assigned primary data point is shown in brackets, e.g. (***cs***).

### 5.5.7 Service and System Maintenance View

In the column Service and System Maintenance view is indicated which data points are shown and which are not shown in each level.

## 5.6 Divergent house address structure

novaWeb automatically recognises whether a house address structure that allows optimised presentation is available for the system. For this purpose, novaWeb makes the enquiries shown in the following flow chart for each automation station, and displays the plant according to the result.


MFA63 DW20 Byte 4 = [1...254] d.h. ≠ 0,255 und
MFA63 DW20 Byte 3 = [1...23] d.h. ≠ 0,24
Yes
Presentation in the definition of the applications modules
No
Are at least two data point pairs with codes ‚ms' and ‚sp' present in the AS?
Yes
Optimised system presentation under the novaWeb rules
No
Presentation of the individual AS

## 5.7 Presentation of a plant with a divergent house address structure

Systems whose house address structure does not guarantee optimised presentation of the plant (as in the case of existing systems, for instance) are automatically presented in list form (also see the section on 'Divergent house address structure').

In this case, novaWeb adds an extension to the relevant house address in the list that is displayed. The extension indicates how novaWeb interprets the data point. The way novaWeb interprets a data point depends on the firmware module used, on specific parameters of the firmware module and - in the case of a few firmware modules - on the function block (SW CC) that was used in the FBD.

Certain firmware modules (AO, BI, …) are mapped by novaWeb on several data points. The following overview shows how the individual firmware modules are presented by novaWeb.

| Data point | Parameter | Other information | Data point type novaWeb | Extension novaWeb | HDB novaWeb |
|---|---|---|---|---|---|
| AI | --- | --- | FVAL | .cm | Yes |
| AI_Soft | fSP = nein | --- | FVAL | .cm | Yes |
| AI_Soft | fSP = ja | --- | FVAL | .sp | Yes |
| AIA_Soft | fSP = nein | --- | FVAL | .out | Yes |
| AIA_Soft | fSP = ja | --- | FVAL<br>SW | .out<br>.mo | Yes<br>no |
| AO | --- | --- | FVAL<br>SW | .out<br>.mo | Yes<br>no |
| BI | fAISt = Alarm | --- | Alarm | .al | no |
| BI | fAISt = Status; FC = No hours-run meter | | Bool | .di | |
| BI | fAiSt = Status; FC = With hours-run meter | --- | Bool<br>FVAL<br>Alarm<br>FVAL<br>Bool | .di<br>.rt<br>.rt.al<br>.rt.mx<br>.rt.pb | no<br>Yes |
| BI_Soft | fAISt = Alarm | --- | Alarm | .al | no |

| Data point | Parameter | Other information | Data point type novaWeb | Extension novaWeb | HDB novaWeb |
|---|---|---|---|---|---|
| BI_Soft | fAISt = Status; FC = No hours-run meter | --- | Bool | .di | no |
| BI_Soft | fAiSt = Status; FC = With hours-run meter | --- | Bool<br>FVAL<br>Alarm<br>FVAL<br>Bool | .di<br>.rt<br>.rt.al<br>.rt.mx<br>.rt.pb | no |
| CFB_Soft | --- | Utilization only analogue, i.e. SW_CC = 90 | FVAL | .sp | Yes |
| CFB_Soft | --- | Utilization only digital, i.e. SW_CC = A0 | SW | .sw | Yes |
| CFB_Soft | --- | Utilization analogue and digital, i.e. SW_CC = B0 | FVAL<br>SW | .sp<br>.sw | Yes<br>no |
| CI | --- | --- | FVAL | .cm | yes |
| CIF_Soft | --- | --- | FVAL | .cm | yes |
| CIV_Soft | --- | --- | FVAL | .cm | yes |
| DI | FC = No hours-run meter | --- | Bool | .di | Yes<br>no |
| DI | FC = With hours-run meter | --- | Bool<br>FVAL<br>Alarm<br>FVAL<br>Bool | .di<br>.rt<br>.rt.al<br>.rt.mx<br>.rt.pb | Yes<br>no |
| DI_Soft | --- | --- | SW | .sw | no |
| DI_Soft | --- | --- | SW | .di | |
| DIA_Soft | --- | --- | SW<br>Yes | .sw<br>.do | no<br>Yes |
| DO | --- | --- | SW<br>SW | .sw<br>.do | no |

N.B.: The two firmware modules C_PReset and Emax, which are listed in manual 7000877 as inputs and outputs, are not included in the list because they are usually used in the FBD as function modules without an output.

### 5.7.1 Installations view

If you choose an installation listed in the navigation window (for the criteria on this, see the section on ‘Divergent house address structure’), a list of all the data points is shown in the main window. The list is split into three sections: ‘Device’, ‘Output’ and ‘Monitoring and Alarm’. This view is described in greater detail in ‘View existing installations’.

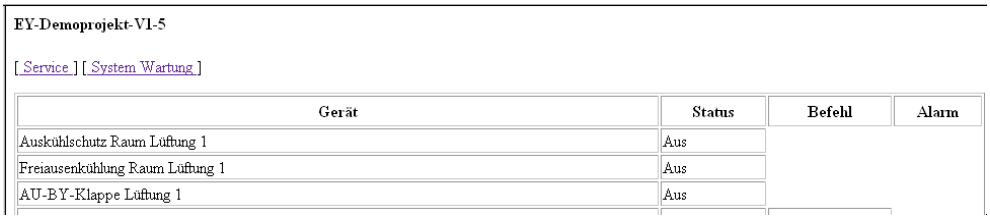
The data points in the various sections of the list are shown in accordance with

the following table.

The list includes the address text of the data points and the relevant value/status. Depending on the level on which you logged yourself onto, you can adapt values, change the mode and so on.

### 5.7.2 Service and system maintenance view

Call up the relevant link to select a plant or automation station which is listed in the navigation window (for the criteria on this, see the section on ‘Divergent house address structure’). When you do this, the links for the Service and System Maintenance view will also appear in the main window next to the list of data points.


EY-Demoprojekt-V1-5

[ Service ] [ System Wartung ]

| Gerät | Status | Befehl | Alarm |
|---|---|---|---|
| Auskühlschutz Raum Lüftung 1 | Aus | | |
| Freiausenkühlung Raum Lüftung 1 | Aus | | |
| AU-BY-Klappe Lüftung 1 | Aus | | |

If you call up the ‹Service› or ‹System Maintenance› link, the main window will show all the data points for the plant or automation station in table form. In the Service view, the left column of the table lists the address text, and the right column shows the house address with the relevant extension (see the Overview in this section for more information).

In the System Maintenance view, by contrast, the left column shows the house address and the right column shows the address text.

Depending on the level at which you are logged in, both views offer you possibilities for viewing and changing values and/or statuses. The overview…… shows which data are accessible in the various levels. The data points are listed in the table according to the alphanumeric sequence of the house addresses.

Insert list.

# 6 Additional parameters

## 6.1 Address text

The full 32 characters available in the AS can be used to specify a data point address text. The characters which can be used, depend on the language which has been specified for the AS. To select a different language for an AS you have to select the language in the program “AutomationStation” under “Special/ Language Selection..”. This setting will affect any AS treated on this PC until it is once again set to a different language.

You can check the available characters with your EYT240 control panel. Under “Menu3” “Gr.No./Character Set” you can see all available characters according to the specified language (which can also be set in “Menu3”).

## 6.2 Unit

For analogue values, a unit can be generated which will be shown next to the value.

In the special case of a meter data point (***met***), the resulting derivation meter data point (***met.dy***) which is shown at the html pages will automatically come along with the appropriate unit (this means for a met data point which is generated with the unit kW a ***met.dy*** data point is shown with the unit kWh, or l/ min will become just l)

## 6.3 Zones

In addition to the data point name and description you can also specify the domain or zone to which this data point belongs. The domain is always specified by four characters, which are shown in the protocol zone according to the following table.

| Zones | Event Domain | FBD (Protocol) Zone |
|---|---|---|
| HEAT | Heating | x |
| VENT | Ventilation | x |
| COOL | Cooling | x |
| ELEC | Electricity | x |
| FIRE | Fire | x |
| SECU | Security | x |
| (SYS) | (System errors) | - |
| (USER) | (User inputs) | - |

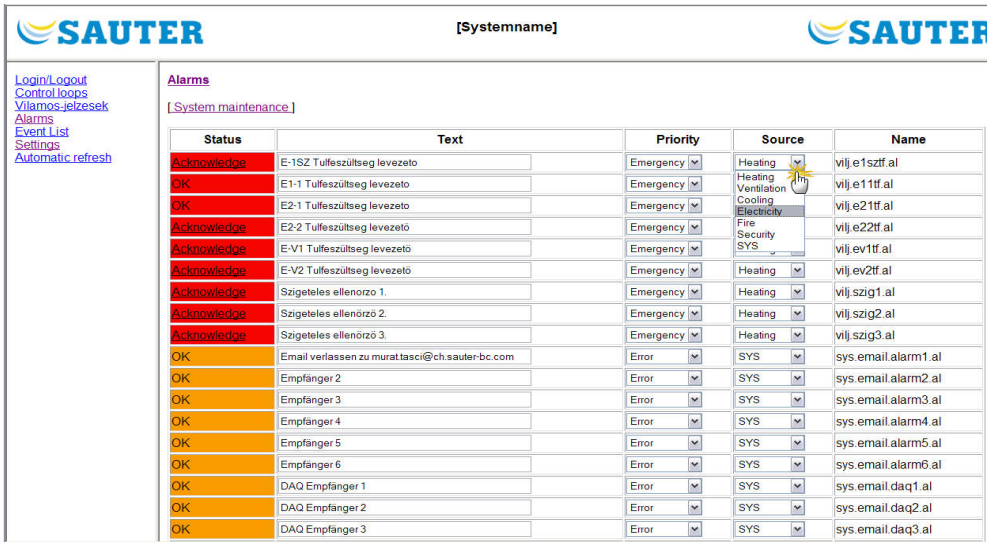
The domain of a data point is always indicated with any event in the event list (in clear text) and is also transmitted in an alarm transfer via e-mail.

## 6.4 Alarm priorities

Each alarm has a certain priority. For all alarm data points, the alarm priority can be configured in the AS.

| CASE Engine (Protocol) Category | Internal Category | E-mail Priority | WDC PRI | Category | Alarm | Event |
|---|---|---|---|---|---|---|
| 0-1 | 0 | 1 (Highest) | EMERG | Emergency | x | |
| 2-3 | 1 | 2 (High) | ALERT | Alert | x | |
| 4-5 | 2 | 3 (Normal) | CRIT | Critical | x | |
| 6-7 | 3 | 3 (Normal) | ERR | Error | x | |
| 8-9 | 4 | 4 (Low) | WARN | Warning | x | |
| 10-14 | 5 | 4 (Low) | NOT | Note | x | |
| - | 6 | 5 (Lowest) | INFO | Info | | x |
| - | 7 | - | - | Debug | | |

All alarms in the alarm list are ordered according to their priority. The alarm priority is shown with any event in the eventlist (in clear text) and is also transmitted in an alarm transfer via e-mail.




NOTE:
Alarm priorities and zones (source) can be changed in novaWeb for each data point. However, they can be saved only on the novaWeb level.

# 7 Login/Logout

To login go to the Login page

1. enter your user name (typically your e-mail address),
2. select your user level,
3. enter your password,
4. and hit the Login button.

Login novaWeb v2.8.3

Once you have logged in, you are shown the Alarm page as primary information.

To log off, just go back to the login page again (select Login/Logout in the navigator frame on the left).

## 7.1 Version information

A novaWeb server exists of a base system and the application running on it. Each of them has a separate version.

During login to the html pages you always get the information about the installed version of your novaWeb application (e.g. novaWeb v2.8.3 means the novaWeb application is version 2.8.3).

During the login to telnet you will get a different version number (e.g. 3.3). This is called the base version.

Please do not mix up these two and make sure to use the most recent version.

#### 7.1.1 Update

Please check with your support how to update your novaWeb server. In this case, you don’t have to change anything in your AS, you just have to redo your settings and re-download any menus, functional descriptions or pictures (if used).

### 7.2 Your name

User name/e-mail address e.g. your.name@ch.sauter-bc.com.

The name can be freely chosen. It will be specified in the event list if any user interactions are done under this name. However, the access is only controlled by the user level and the according password.

### 7.3 User level

#### 7.3.1 Guest

As a guest, no password is required. Guests are only allowed to view the main values of control loops, installations, alarms and events without being able to modify anything.

#### 7.3.2 User

A standard user account gives you access to all guest activities plus normal user operations like the acknowledging of alarms, the changing of setpoints and so on.

#### 7.3.3 Service

On top of the standard user rights, the service user has access to the service list, which allows him to modify some control loop parameters.

#### 7.3.4 System maintenance

In addition to the earlier issues, only as a system maintenance user do you have access to the system maintenance list; you are allowed to modify the whole configuration (settings page).

### 7.4 Password

Every user has to enter a correct password for his user level. For each user level, one or more passwords can be configured under the settings pages. Passwords can only be changed with system maintenance rights, but not by a standard user.

# 8 Control loops

As an overview, control loops shows the main information about your controls if a house address structure is used that allows optimised presentation of the system by novaWeb (on this point, also see the section on 'House address structure for optimised presentation'). The overview always shows the actual (measured) value, the corresponding setpoint and the difference between them.

| Control Loops | Actual | Set point | Diff |
|---|---|---|---|
| Supply Air Temp | 22.6 °C | 24 °C | -1.4 °C |
| Cooling Water Temp | 16.1 °C | 16 °C | 0.1 °C |

Each column shows the values of one control loop: the address text of the main sensor (***ms***), its current value, the corresponding setpoint (***sp***) and the difference between them. As described in the chapter function or functional group, all data points belonging to one control loop must share the same first and second part of the house address. The third part (***ms, sp***) will then define their meaning within this group (in this case within this control loop).

| Control Loops | Actual | Set point | Diff |
|---|---|---|---|
| Address text of ms data point of first control loop | ***ms*** | ***sp*** | ***(ms-sp)*** |
| Address text of ms data point of second control loop | ***ms*** | ***sp*** | ***(ms-sp)*** |

## 8.1 Deviation

To facilitate the handling of your Control Loops the deviation (or difference) is shown with a green background for very small deviations, olive for small deviations and yellow for large deviations. Like this the user can see very fast if he needs to act on any of them.

The distinction between very small, small and large deviation is independent of the type of control circuit or the units for the setpoint (e.g. °C, Pa, rH).

| | | Setpoint > 10 units | Setpoint ≤ 10 units |
|---|---|---|---|
| Very small deviation | | Deviation < 5% of setpoint | Deviation < 0.5 |
| Border between very small and small | | 5 % of setpoint | 0.5 |
| Small deviation | | Deviation < 10 % of setpoint | Deviation < 1 |
| Border between small and large | | 10 % of setpoint | 1 |
| Large deviation | | Deviation > 10% of setpoint | Deviation > 1 |

# 9 Installations

If you select any installation in the navigation bar per default, the standard installation view will be shown. It consists of the installation view itself plus some additional links according to your user level and any additional documents that have been downloaded onto the novaWeb .

## 9.1 Additional links

Right at the top of this list, you can get a link to a text document (named functional description) and one or several pictures (named schematics) if you have downloaded these documents to your novaWeb:
[ Functional description ] [ Schematics ] [ Schematics ]
Depending on your operating level, further links to the service (requires service level) and system maintenance lists (on the system maintenance level only) may appear:
[ Service ] [ System maintenance ]

## 9.2 Optimised installation view

Installations with a house address structure that ensures optimised presentation by novaWeb (on this point, also see the section on ‘House address structure for optimised presentation’), are shown in the form described in this section.

### 9.2.1 Sections

In the installation view, you get an overview of your installation structured according to the following sections:-

Device

Control Loops

control loop 1

control loop 2

Outputs

Monitoring and Alarm

Device

displays the time schedule (***tc***) and digital information (***di/do***)

Control loops

shows all data points belonging to a control loop (***ms***) grouped together as such

Outputs

any outputs (***out<N>***) which are controlled from more than one control loop

Monitoring and alarm

includes all other measurements (***cm***), meters (***met, rt***) and alarms (***al***) which are not directly linked to any of the above

A section is shown only if there is a data point within this section. If there is no output data point, for example, this section will not be shown.

### 9.2.2 Columns

Each of these sections is displayed over up to 4 columns:

| Header or Description | Actual Value or State | User Interactions | Alarms |
|---|---|---|---|
| Device | | | |
| | | | |
| Control Loops | | | |
| control loop 1 | | | |
| | | | |
| control loop 2 | | | |
| | | | |
| Outputs | | | |
| | | | |
| Monitoring and Alarm | | | |
| | | | |

The first column shows a description

The second column indicates the actual values or states.

additionally it provides links to the History of the value (50.5 °C)

or the group of values (History).

The third column shows any possible user inputs like

time programs (indicated by Change)

set points (a value like 54 °C)

commands (a command state like Off)

or push buttons. (e.g. Reset )

In the fourth column alarms are indicated as

OK or

Alarm

### 9.2.3 Background

A red background always indicates an alarm
A green background for

- a control loop (first column, only if programmed)
- or a state (second column)
- or a push button (third column)

indicates that this device is running (or in a working mode).

#### 9.2.3.1 Example

As a typical example the installation view below shows an air handling unit with the three sections devices, control loops and monitoring and alarm. Since no output data point is controlled by more than one control loop this section is not shown.

| Device | Status | Command | Alarm |
|---|---|---|---|
| Time Schedule AHU01 | On | Change | |
| Pump A3 | Off | Off | OK |
| Control Loops | Actual | Set point | Alarm |
| Supply Air Temp | History | | |
| Outside Air Offset | 50.5 °C | | |
| Supply Air Temp | 42.4 °C | 54 °C | |
| Limit | 0 % | | |
| Cooling Valve | 0 % | | |
| Heating Valve | 0 % | | |
| Monitoring and Alarm | | | Alarm |
| Outside Temperature | 19 °C | | |
| Water Consumption | 20 lit | | |
| Failure Pump A | | | OK |

#### 9.2.3.2 General view

In a more general view you can see the following information:

| Devices | Status | Command | Alarm |
|---|---|---|---|
| Time schedule | ***tc*** (time command state) | ***tc*** (time command) | |

| Devices | Status | Command | Alarm |
|---|---|---|---|
| Digital Indication | ***di*** (digital input)<br>***do*** (digital output) | ***sw*** (switch)<br>***pb*** (push button)<br>***sp*** (set point) | ***al*** (alarm) |
| | | | |
| Control Loops | Status | Set point | Alarm |
| Control Loop x | History | | |
| Compensation for control loop x | ***cs*** (compensation sensor) | compensation (from ***cs*** or ***csp1***) | |
| control loop x | ***ms*** (main sensor) | ***csp*** (calculated setpoint)<br>***sp*** (setpoint)<br>->***sp*** (link to setpoint curve) | ***al*** (alarm) |
| Cascade Control for control loop x | ***ls*** (limit sensor) | | |
| Output for control loop x | ***out1*** (output 1) | | |
| | | | |
| Outputs | Actual | Setpoint | Alarm |
| Individual Output<br>(not specific to one control loop) | ***out 1***<br>(output 1 controlled by x control loops) | | |

| Monitoring and Alarm | Actual | Setpoint | Alarm |
|---|---|---|---|
| Common Measurement | ***cm*** (common sensor) | | ***al*** (alarm) |
| Meter | ***met*** (meter) | | |
| Runtime meter | ***rt*** (runtime) | ***rt.pb*** (push button of rt) | ***rt.al*** (alarm) |
| Individual Alarm<br>(not linked to any other value) | | | ***al*** (alarm) |

In the system view only the major points plus their assigned points are shown. All other points (e.g. assigned points without corresponding major point or parameters) are only shown in the service or system maintenance list.

#### 9.2.3.3 Mayor Points/Assigned Points

Assigned points are points sharing the same house address beginning (part1 &2) as an major point with a different extension (part 3).

#### 9.2.3.4 Primary/Secondary Points

One line always consists of a primary point (second column: state/actual value) plus up to two secondary points (third and fourth column: commands, setpoints and alarms). The description (first column) always comes from the address text of the primary point.

#### 9.2.3.5 Major (Primary) Points:

***tc, Yes [di, do], ms, out<N>, cm, met, rt*** and ***al***

### 9.2.3.6 Assigned Primary Points:

***cs, ls, out_N***

### 9.2.3.7 Assigned Secondary Points:

***sw, pb, sp, al,*** ...

| Section | First (Description) & Second Column (Primary Points) | | Third Column | | Fourth Column |
|---|---|---|---|---|---|
| | Major Point | Assigned Primary Point | Assigned Secondary point | Link | Assigned Alarms |
| Devices | | | | | |
| Control Loops | tc | | tc | | |
| | di/do | | do, sw, pb, sp | | al |
| | | | | | |
| | ms | | sp, csp, | | al |
| Outputs | | cs | | | |
| | | ***cs<N>*** | ***csp<N>*** | | |
| | | ls | | | |
| | | ***out<N>*** | | | |
| | out<N> | | | | |
| Measurement and Alarm | | | | | |
| | cm | | | | al |
| | met | | | | |
| | rt | | rt.pb | | rt.al |
| | al | | | | al |

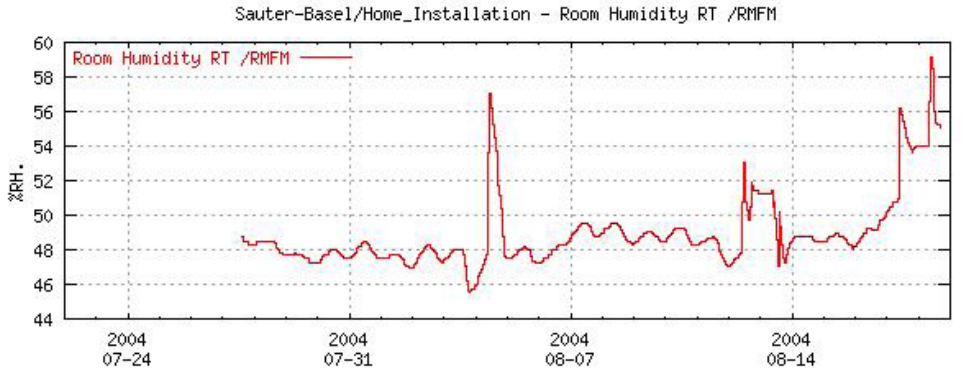
If an ***out<N>*** data point has the same house address root (first & second part) as

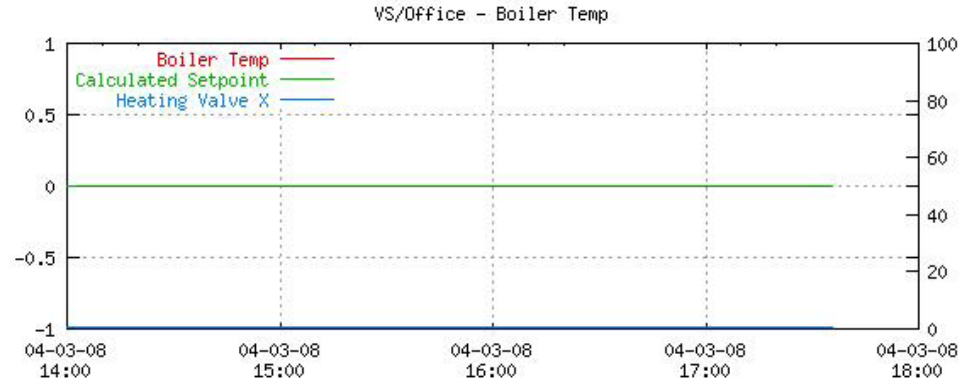
a ***ms*** data point, it will be treated as assigned to it. Otherwise it will be handled as an independent major point.

### 9.2.4 History

The group history link (History) will show you a diagram of the whole function group (main sensor, setpoint or calculated setpoint and if existing the positioning signal) whereas a simple link of one address (like 50.5 °C) will show only the history of this individual point.

| Hours | Days | Weeks | Year |
|---|---|---|---|




If the whole group is shown, the left scale corresponds to the main sensor and the (calculated) setpoint. Whereas the right scale is used for the positioning signal.

The period for the diagram can be selected via the above table:-

Hours Days Weeks Year

If ‚Weeks' or ‚Years' are selected as the period, the menu bar changes. The selected ‚Weeks' or ‚Years' menu item is replaced by a new menu item, ‚Weeks Min/Max' or ‚Years Min/Max'. If you now select the newly-displayed menu item, the values in the period entered are additionally shown with the measured minimum and maximum values.

Depending on your selection, you get the following predefined recordings:-

| Chart | Time period | Recording Cycle | Mean Value | Min. Value | Max Value | File | Saved in | e-mail sent at | e-mail content |
|---|---|---|---|---|---|---|---|---|---|
| Hours | 4 hours | 30 sec | x | | | k1log | RAM | every hour (x:00) | 1 hour |
| Days | 4 days | 5 min | x | | | k2log | RAM | every day (00:00) | 1 day |
| Weeks | 4 weeks | 1 hour | x | x | x | l1log | CF Card | every week (Mo 00:00) | 1 week |
| Years | 1 year | 1 day | x | x | x | l2log | CF Card | every quarter (01.xx. 00:00) | 1quarter |

All recording is handled on novaWeb level according to this table. There is no special setting (like fHDB,..) necessary in the FBD. However, of course, you have to specify a threshold value with which the value is updated at the novaWeb level.
These recordings can be sent via e-mail to any e-mail recipient. For more details on this transfer, please refer to the chapter entitled ‚Data acquisition via e-mail‘.

## 9.3 View of existing installations

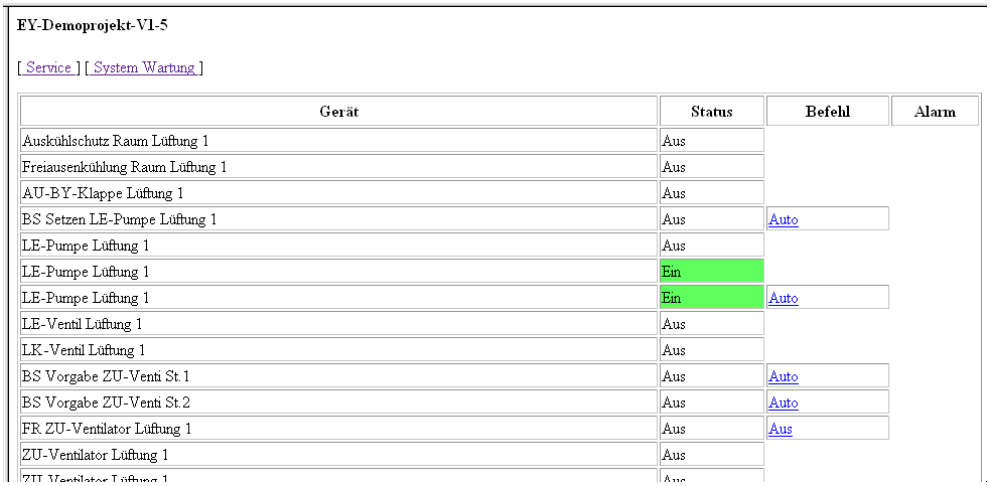
Installations with a house address structure that does not result in optimised presentation by novaWeb (on this point, also see the section on ‘House address structure for optimised presentation’) are subject to the following rules regarding presentation.

In automation station DW20, if the MFA63 is described with a value ≠ 0 or 255, the navigation frame shows the plant as a link provided that at least 4 data points are available for the plant.

In automation station DW20, if the MFA63 is described with a value of 0 or 255, the navigation frame shows the automation stations as links. In this case, the navigation frame also shows the house address for the automation station. If no house address has been assigned, expression ‘AS’ with the number of the automation station is shown.

### 9.3.1 Installation view

The next illustration shows an extract from the list for a plant which does not have a house address structure for optimised novaWeb presentation. DW20 of MFA63 for the automation station is described with a value ≠ 0 or 255.



EY-Demoprojekt-V1-5

[ Service ] [ System Wartung ]

| Gerät | Status | Befehl | Alarm |
|---|---|---|---|
| Auskühlschutz Raum Lüftung 1 | Aus | | |
| Freiausenkühlung Raum Lüftung 1 | Aus | | |
| AU-BY-Klappe Lüftung 1 | Aus | | |
| BS Setzen LE-Pumpe Lüftung 1 | Aus | Auto | |
| LE-Pumpe Lüftung 1 | Aus | | |
| LE-Pumpe Lüftung 1 | Ein | | |
| LE-Pumpe Lüftung 1 | Ein | Auto | |
| LE-Ventil Lüftung 1 | Aus | | |
| LK-Ventil Lüftung 1 | Aus | | |
| BS Vorgabe ZU-Venti St.1 | Aus | Auto | |
| BS Vorgabe ZU-Venti St.2 | Aus | Auto | |
| FR ZU-Ventilator Lüftung 1 | Aus | Aus | |
| ZU-Ventilator Lüftung 1 | Aus | | |
| ZU-Ventilator Lüftung 1 | Aus | | |

Certain firmware modules are mapped by novaWeb on several data points.

f novaWeb adds extension .mo to a data point, it is shown in the installation view in the same line in the ‹Command› column. The next illustration shows how an AO firmware module in an installation is displayed by novaWeb, as an example.

| | | |
|---|---|---|
| LK-Ventil Lüftung 1 | 0 % | Auto |

The left-hand column shows the address text, and the middle column shows the current value; the link in the right-hand column allows you to send a command. If you call up the link, you will be shown the input mask to change the value in the main window.

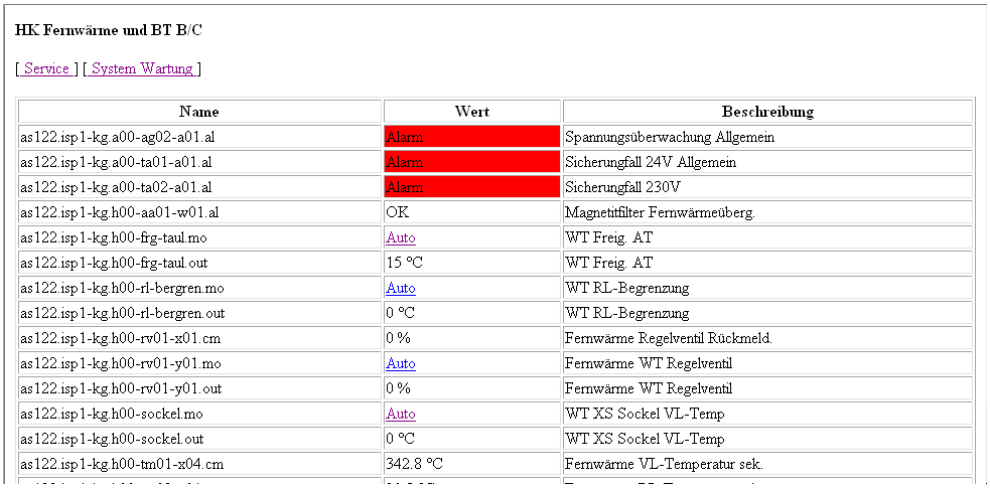
novaWeb shows different firmware modules with several additional data points that have different extensions: .rt  (=runtime), .rt.al (= runtime alarm), .rt.mx (= runtime minimum) and .rt.pb (= pushbutton to reset runtime) (also see the section on ‹Naming convention for optimised presentation’). The installation view shows the data points with extensions .rt, .rt.pb and rt.al in one line.

| | | | |
|---|---|---|---|
| Runtime, Pumpe Radiatoren | 71.9 h | Reset | OK |

The relevant data point with extension rt.mx can be seen in the Service and System Maintenance view.

### 9.3.2 AS link in the navigation window

If you select automation stations that are listed in the navigation window, you will be shown a list in the same format as the list of plants in the System Maintenance view. This list contains three columns: Name, Value and Description with information about the house address, value and/or status, and the address text. The next illustration shows a display of this sort.



HK Fernwärme und BT B/C

[ Service ] [ System Wartung ]

| Name | Wert | Beschreibung |
|---|---|---|
| as122.isp1-kg.a00-ag02-a01.al | Alarm | Spannungsüberwachung Allgemein |
| as122.isp1-kg.a00-ta01-a01.al | Alarm | Sicherungfall 24V Allgemein |
| as122.isp1-kg.a00-ta02-a01.al | Alarm | Sicherungfall 230V |
| as122.isp1-kg.h00-aa01-w01.al | OK | Magnetitfilter Fernwärmeüberg. |
| as122.isp1-kg.h00-frg-taul.mo | Auto | WT Freig. AT |
| as122.isp1-kg.h00-frg-taul.out | 15 °C | WT Freig. AT |
| as122.isp1-kg.h00-rl-bergren.mo | Auto | WT RL-Begrenzung |
| as122.isp1-kg.h00-rl-bergren.out | 0 °C | WT RL-Begrenzung |
| as122.isp1-kg.h00-rv01-x01.cm | 0 % | Fernwärme Regelventil Rückmeld. |
| as122.isp1-kg.h00-rv01-y01.mo | Auto | Fernwärme WT Regelventil |
| as122.isp1-kg.h00-rv01-y01.out | 0 % | Fernwärme WT Regelventil |
| as122.isp1-kg.h00-sockel.mo | Auto | WT XS Sockel VL-Temp |
| as122.isp1-kg.h00-sockel.out | 0 °C | WT XS Sockel VL-Temp |
| as122.isp1-kg.h00-tm01-x04.cm | 342.8 °C | Fernwärme VL-Temperatur sek. |

## 9.4 User interaction

In general, there are two kinds of user interaction possible:-

Pressing a button will always immediately cause a reaction (usually sending a value to the AS).

A link will show up a new page. In these pages you can enter a new value (e.g. a setpoint) or select a new position. In this case the action is only executed after pressing the Change button. Pressing the Reset button will undo any changes since the last confirmed change (this means any user modification after pressing the change button the last time).

After the execution of the command you always get an information about the executed changes.

### 9.4.1 Push-button commands

| Device | Status | Command | Alarm |
|---|---|---|---|
| Start-up Chiller 1 | Off | Start-up | OK |

A push button can come up with different button texts. However it always works the same in setting a value to one and resetting it 60 seconds later. During this 60 seconds the background is changing to green to indicate this change. After execution a feedback will inform you of this change:

```
Change Value

Changed Command Switch Pump A(as11chb.pump.pb) from 0 to 1

Reset of push-button will be done with 60 s delay
```

### 9.4.2 Reset runtime

| Monitoring and Alarm | | | Alarm |
|---|---|---|---|
| Runtime Pump A | 23 h | Reset | OK |

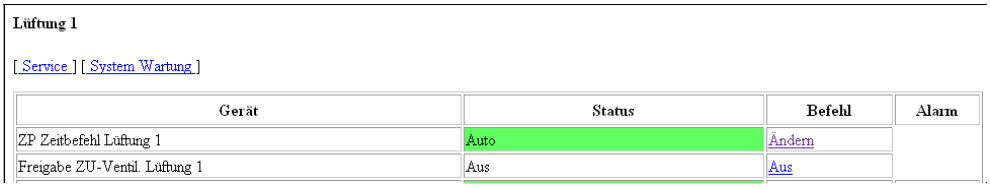
The runtime works very similar to the push button in resetting a counter value (runtime meter) to 0. (As you can see also from the feedback)

```
Change Value

Changed Reset, Pump runtime(as11chb.pump.rt.pb) from 0 to 1

Reset of push-button will be done with 60 s delay
```

(First line appears only when state actually changes)

### 9.4.3 Changing time schedules

Time schedules can be saved for data points if the naming conventions are taken into account for the house address (on this point, see the section on 'Working with CASE Engine'). The next illustration shows part of a plant with a data point for which time switching commands have been stored.

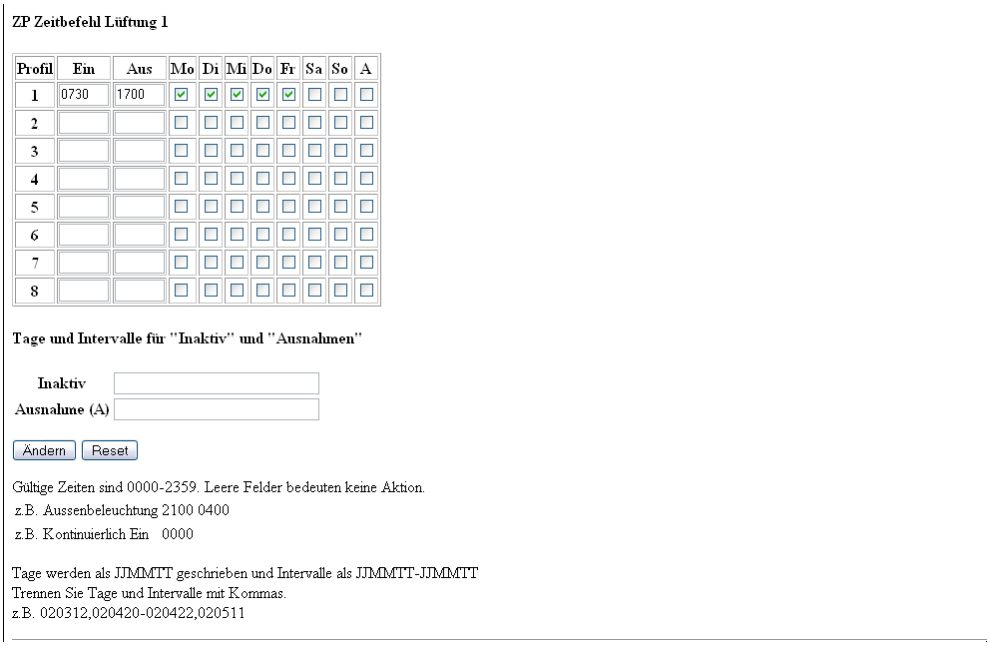


Lüftung 1

[ Service ] [ System Wartung ]

| Gerät | Status | Befehl | Alarm |
|---|---|---|---|
| ZP Zeitbefehl Lüftung 1 | Auto | Ändern | |
| Freigabe ZU-Ventil. Lüftung 1 | Aus | Aus | |

Use the ‹Change› link to call up the time schedule. The input mask looks like this.



ZP Zeitbefehl Lüftung 1

| Profil | Ein | Aus | Mo | Di | Mi | Do | Fr | Sa | So | A |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0730 | 1700 | ☑ | ☑ | ☑ | ☑ | ☑ | ☐ | ☐ | ☐ |
| 2 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8 | | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

Tage und Intervalle für "Inaktiv" und "Ausnahmen"

Inaktiv
Ausnahme (A)

Ändern Reset

Gültige Zeiten sind 0000-2359. Leere Felder bedeuten keine Aktion.
z.B. Aussenbeleuchtung 2100 0400
z.B. Kontinuierlich Ein 0000

Tage werden als JJMMTT geschrieben und Intervalle als JJMMTT-JJMMTT
Trennen Sie Tage und Intervalle mit Kommas.
z.B. 020312,020420-020422,020511

For one data point, it is possible to specify up to 8 time programs. This means you can specify 8 different time periods for any combination of weekdays and exception periods. For example, you can specify one profile for normal working days (example profile 1), another profile just for Saturdays (example profile 2) and a third one for any exception days or periods (see below).

Valid times are 0000-2359. The time for switching off can be before the time for switching on.

Empty field means no action.

Next, you can specify certain days or periods when these time profiles should not be executed (Inactive) or when a different time programme (exception) should be executed. For this exception time program, a time program must exist with the column E (for ‹exception›) ticked.

Dates are written using YYMMDD and intervals using YYMMDD-YYMMDD

Dates and intervals must be separated with a comma.
In the example above during the holiday season (1st of July until 31st of July 2004) and on Christmas eve (24th of December 2004) no time profile will be executed. On the 28th of February 2004 as well as the 27th of March 2004, the ‘exception’ time profile will be executed instead of the normal time profile of this weekday (e.g. instead of the Saturday profile)

Similar to the recording of historic values, the time commands are handled on novaWeb level. This means at the specified time of the time command, the relevant command will be sent to the data point of the AS.

**NOTE:**
The first entry for ON/OFF under „Profile 1“ should not be deleted.
The time programme can, however, be deactivated by removing the tick for the weekdays in the first line. Time programmes from „Profile 2“ can be deleted completely.

### 9.4.4 Command

Depending on the type of command, you can choose to switch this address to the automatic state, switch it off or switch it to any given position.

**NOTE:**
In the case of DI, DI_Soft, DIA-Soft, DO and CFB_Soft, only the command texts for switching levels 0 to 5 and Auto are shown.

**NOTE:**
The switching levels of a DI_Soft module, which are not activated in CASE Engine, are still shown in novaWeb, but have no function.

#### 9.4.4.1 Standard Auto/Off/On

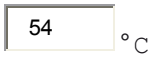
☐ Auto ☉ Off ☐ On

In the case of a ‘do’ command, you always get the standard Auto/Off/On command page. With a ‘sw’ command, you can specify the name (e.g. st1, st2,..) for the different stages in the CASE Engine. Auto and Off are predefined texts

coming from the novaWeb.

#### 9.4.4.2 Example 3 stages

#### 9.4.4.3 Change of values




To change a value, you just enter the new value and hit return.

## 9.5 Functional description

To facilitate the understanding of the installation, a functional description can be added to each installation page. As soon as an html document (with the extension html or htm) with the same name as the installation is downloaded to the novaWeb (folder usr/local/html), a link will appear on this installation page. A more detailed description can be found under the chapter on adding a functional description and schematics. We recommend the use of either the original customer functional description or the one created by CASE Prj.

## 9.6 Schematics

Similarly to the functional description for each installation several schematics or pictures can be downloaded via FTP to the folder usr/local/html of your novaWeb. Please check the chapter about adding a functional description and schematics for more details.

## 9.7 Service view

The service list is shown only with service or maintenance user rights. Apart from the standard installation data points, it indicates some more parameters which are not relevant to the standard user in a simple list.

| Description | Value | Name |
|---|---|---|
| Command Switch Pump A | 0 | as11ahu01.pumpa.sw |
| Outside Air Offset | 50.6 °C | as11ahu01.supaircontr.cs |
| Limit | 0 % | as11ahu01.supaircontr.ls |
| Supply Air Temp | 42.5 °C | as11ahu01.supaircontr.ms |
| Heating Valve | 0 | as11ahu01.supaircontr.out1 |

| Description | Value | Name |
|---|---|---|
| Cooling Valve | 0 % | as11ahu01.supaircontr.out2 |
| Heating Valve | 0 % | as11ahu01.supaircontr.out3 |
| Supply Air Setpoint | 54 °C | as11ahu01.supaircontr.sp |

There are only minor differences between the service views for plants with a house address structure for optimised presentation and those with a divergent house address structure. If a house address structure for optimised presentation of the plant is present (on this point, see the section on ‚House address structure for optimised presentation' and the section on ‚Naming convention for optimised presentation'), the house address is shown 1:1. For a divergent house address structure (see the section on ‚Divergent house address structure') the relevant extension is added to each house address. The appearance of the extension is described in the section on ‚Presentation of the plant with a divergent house address structure'.

## 9.8 System maintenance view

The system maintenance list is very similar to the service list. Apart from the information in the service list, it contains information about data points which are only intended for the system maintenance level user.

| Name | Value | Description |
|---|---|---|
| as11ahu01 | 0 | Air Handling Unit 01 |
| as11ahu01.pumpa.al | 0 | Failure Pump A |
| as11ahu01.pumpa.do | 0 | |
| as11ahu01.pumpa.sw | | Command Switch Pump A |
| as11ahu01.supaircontr.cs | 50.6 °C | Outside Air Offset |
| as11ahu01.supaircontr.ls | 0 % | Limit |
| as11ahu01.supaircontr.ms | 42.5 °C | Supply Air Temp |
| as11ahu01.supaircontr.out1 | 0 | Heating Valve |
| as11ahu01.supaircontr.out2 | 0 % | Cooling Valve |
| as11ahu01.supaircontr.out3 | 0 % | Heating Valve |
| as11ahu01.supaircontr.sp | 54 °C | Supply Air Setpoint |
| as11ahu01.supaircor.sp | 0 | |
| as11ahu01.time schedule.tc | 1 | Time Schedule AHU01 |

There are only minor differences between the system maintenance views for installations with a house address structure for optimised presentation and those with a divergent house address structure. If a house address structure for optimised presentation of the installation is present (on this point, see the section on ‚House address structure for optimised presentation' and the section on 'Naming convention for optimised presentation'), the house address is shown 1:1.

For a divergent house address structure (see the section on ‘Divergent house address structure’) the relevant extension is added to each house address. The appearance of the extension is described in the section on ‘Presentation of the installation with a divergent house address structure’.

# 10 Alarms

By default, the alarm list shows all the alarms that either have not yet been acknowledged or are still active.

## 10.1 Alarms

| Status | Text | Time | Name |
|---|---|---|---|
| Acknowledge | Frost Protection Alarm | 2004-07-21 15:18:02 | ahu02.otemp.al |

### 10.1.1 Indication of all active/all generated alarms

With the alarm link at the top of the alarm list, you can switch between the list of active alarms and the list of all generated alarms.

| Status | Text | Time | Name |
|---|---|---|---|
| Acknowledge | Frost Protection Alarm | 2004-07-21 15:18:02 | ahu02.otemp.al |
| OK | novaNet AS 5 failure | 2004-07-21 15:17:01 | sys.sauter.as5.al |
| OK | novaNet AS 10 failure | 2004-07-21 15:17:01 | sys.sauter.as10.al |
| OK | novaNet Bus failure | 2004-07-21 15:17:00 | sys.sauter.busfail.al |
| OK | Alarm, Runtime, Return Air Controller | 2004-07-21 15:18:01 | reg.rac.rt.al |

In the list of all generated alarms, even the alarm data points which currently are OK are shown.

### 10.1.2 Alarm priorities

According to the importance of an alarm, the background will be shown according to the following table:

| |
|---|
| Emergency |
| Alert |
| Critical |
| Error |
| Warning |
| Note |

#### 10.1.2.1 Acknowledging

If a new alarm appears, it will come up with the Acknowledge link, to indicate that it has not yet been acknowledged. After acknowledging, the alarm stays as active if the alarm condition is still met; if not, the alarm will disappear.
An alarm will be treated as normal (not active) only after the alarm condition has disappeared and (!) the alarm has been acknowledged.

**NOTE:**
Alarm acknowledgements in novaWeb are not sent to the automation station. An acknowledgement occurs only on the novaWeb level.

### 10.1.2.2 System errors

Some alarm data points are generated automatically by the system to indicate critical system errors:-

| | | | |
|---|---|---|---|
| OK | novaNet Bus failure | 2004-07-20 13:59:25 | sys.sauter.busfail.al |

A novaNet bus failure is shown whenever no communication arrives within a certain time period.

| | | | |
|---|---|---|---|
| OK | novaNet AS 10 failure | 2004-07-20 16:55:09 | sys.sauter.as10.al |

For each AS, an alarm is generated to indicate a communication error to this AS.

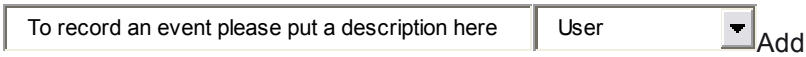
# 11 Events

In the event list, the following events can be tracked:-

- All user interactions
- Acknowledging of alarms
- Changing of values (setpoints, commands, push buttons, runtime)
- Changing settings (language,..)
- Any (coming or parting) alarms
- Normal alarms
- System alarms (bus failure, AS failure, internal system failure)
- Manual user entries
- According to entry (at least user level required)

## 11.1 Manual/user entries

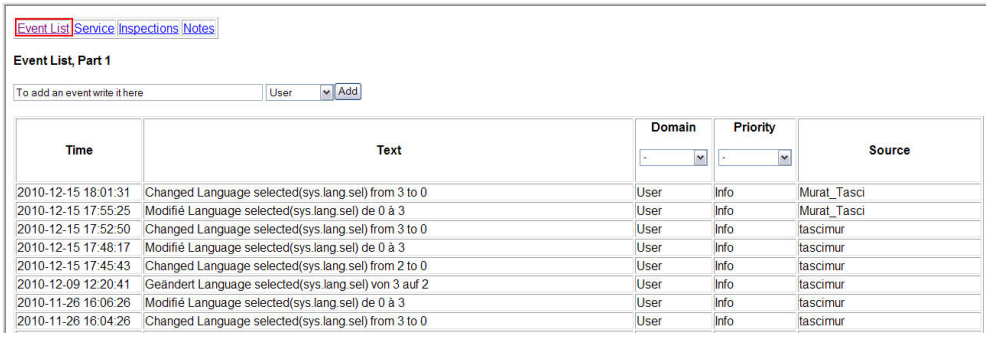
If you want to enter any information manually, you can put a description in the form to the left, select a domain and press the ‘Add’ button.




N.B.: This function is not available in the ‘Guest’ level.

## 11.2 Event list

The event list shows user inputs as well as alarms or other events in chronological order:



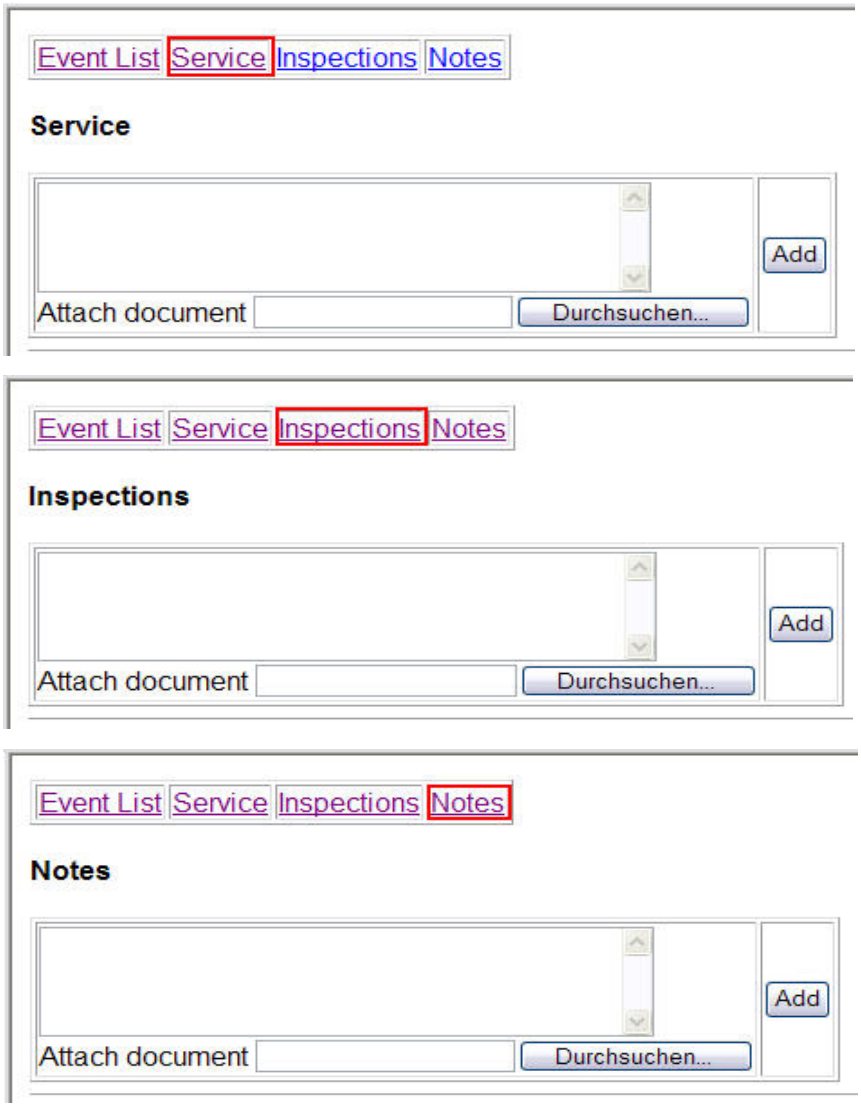

| Time | Text | Domain | Priority | Source |
|---|---|---|---|---|
| 2010-12-15 18:01:31 | Changed Language selected(sys.lang.sel) from 3 to 0 | User | Info | Murat_Tasci |
| 2010-12-15 17:55:25 | Modifié Language selected(sys.lang.sel) de 0 à 3 | User | Info | Murat_Tasci |
| 2010-12-15 17:52:50 | Changed Language selected(sys.lang.sel) from 3 to 0 | User | Info | tascimur |
| 2010-12-15 17:48:17 | Modifié Language selected(sys.lang.sel) de 0 à 3 | User | Info | tascimur |
| 2010-12-15 17:45:43 | Changed Language selected(sys.lang.sel) from 2 to 0 | User | Info | tascimur |
| 2010-12-09 12:20:41 | Geändert Language selected(sys.lang.sel) von 3 auf 2 | User | Info | tascimur |
| 2010-11-26 16:06:26 | Modifié Language selected(sys.lang.sel) de 0 à 3 | User | Info | tascimur |
| 2010-11-26 16:04:26 | Changed Language selected(sys.lang.sel) from 3 to 0 | User | Info | tascimur |

If necessary, notes can be entered manually in the Events List. Entries can be filtered by ‘Range’ or ‘Priority’.

### 11.3 Structure of the event list

One part of the event list can contain up to 200 entries. As soon as more than 200 entries exist, a new list is created and becomes part 1, the old list becomes part 2 and so on. Up to 800 entries can be tracked in this manner. The newest entries are always in part 1 (which is shown per default), the oldest in part 4.

In addition to the event list, manual entries can be made in three categories (Service, Inspections, Notes).



# 12 Settings

The access to the settings pages depend on your user rights:-

- Guests cannot access the setting pages at all.
- Users can access only the data acquisition page to fetch historical data.
- Service users can access and change the alarm, data acquisition, system name and clock settings.
- System maintenance users can access and change anything.

## 12.1 Extent of functions on the ‘Guest’ access level

Guests do not have access to the settings pages. Therefore, they are shown the following message:-

## 12.2 Extent of functions on the ‹User› access level

Normal users cannot change any settings. However, they are allowed to fetch the historical data.

On the 'User' access level, e-mail recipients can be neither assigned nor viewed.

## 12.3 Extent of functions on the ‘Service’ access level

On the service user level, it is possible to specify the sending of Alarm and Data acquisition e-mails, modify the system name, to download documents such as a system description (see the section on ‘Description of function and diagrams’), to stop novaWeb, to perform a cold or hot start or to set the clock. A detailed description of these settings can be found in the relevant chapters.

## 12.4 Extent of functions on the ‘System Maintenance’ access level

A detailed description of the system maintenance settings (login, network, selection of the automation stations shown, ‹garbage collection› & language) can be found in the configuration manual.

## 12.5 Data acquisition

| Hous | Days | Weeks | Year |
|---|---|---|---|
| 30-s Values hourly | 5-min values daily | Hours-min., -average, -max. -weekly | Daily-min., -average., -max. quaterly |

Like the transfer of acquired data by e-mail, you can select the core data of each of the four periods (hours, days, weeks and years), and view or save them. To do so, open the context menu of your browser (by right-clicking) and choose 'Save link as…' (FF) or 'Save target as…' (IE) in order to save the core data in a CSV-type HTML file, which you can then export into a spreadsheet program (see 'Processing data-acquisition files'). Alternatively, you can open the relevant web page and have a direct look at the values and/or save the source from within the context menu (FF: 'Frame / Show frame source'. I.E.: 'Source text').

### 12.5.1 Typical data-acqusition table

```
#dateTtime±zone       gev.om.ms      gev.om.out1    gev.om.sp
2004-07-22T09:00:30+0200    7.99561        7.99561
7.93457        0
2004-07-22T09:01:00+0200    7.99561        7.99561
7.99561        0
```

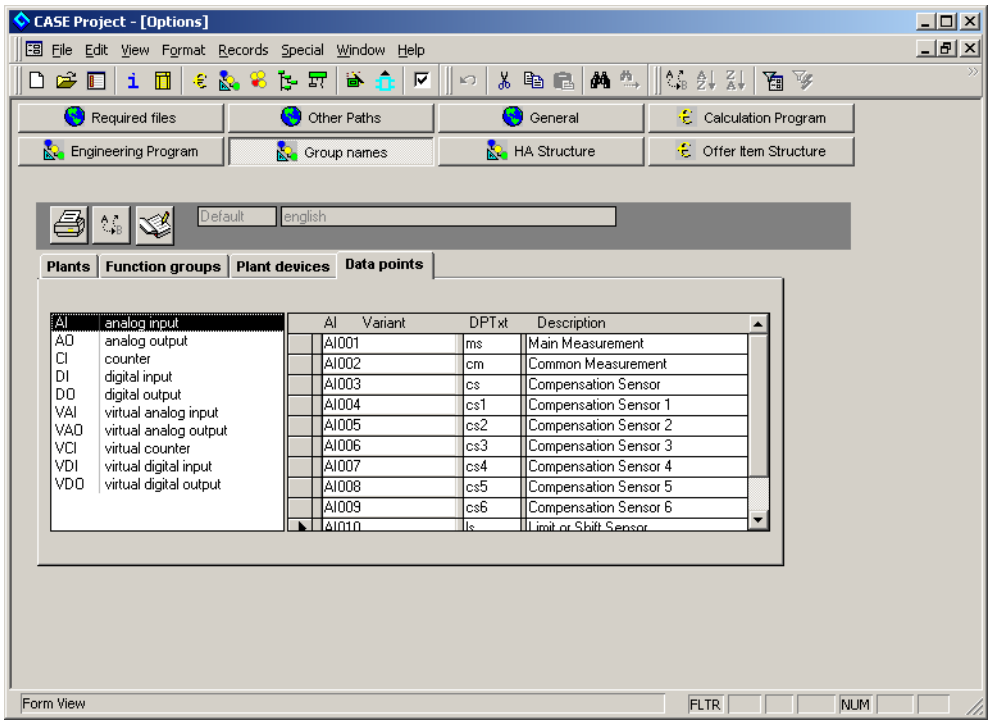
Auf der Quellseite können Sie die Daten auch speichern mit „Speichern unter…“.

# 13 Working with CASE Builder

Engineering time and quality can be largely optimised by generating the data points via CASE Builder. We highly recommend that you prepare your project with CASE Builder before starting to work with CASE FBD.

## 13.1 Data point texts

First of all, you should configure the group name options to optimise the generation of house addresses according to the naming standard.




Based on the international CASE Builder library, the data point names could look as follows:-

| Data Point | Variant | DPTxt | Description |
|---|---|---|---|
| AI | AI001 | ms | Main Sensor |
| | AI002 | cm | Common Measurement |
| AI | AI003 | cs | Compensation Sensor |
| | AI004 | cs1 | Compensation Sensor 1 |
| | AI005 | cs2 | Compensation Sensor 2 |
| | AI006 | cs3 | Compensation Sensor 3 |
| | AI007 | ls | Limit Sensor |
| AO | AO001 | out1 | Output Signal 1 |
| | AO002 | out2 | Output Signal 2 |
| | AO003 | out3 | Output Signal 3 |
| | AO004 | out4 | Output Signal 4 |
| | AO005 | out5 | Output Signal 5 |
| | AO006 | out6 | Output Signal 6 |

| Data Point | Variant | DPTxt | Description |
|---|---|---|---|
| CI | CI001 | cm | Counter |
| | CI002 | met | Deviation Counter |
| DI | DI100 | al | Alarm |
| DI | DI101 | al | Servicing |
| | DI102 | al | Maintenance |
| | DI200 | di | Status |
| | DI201 | di | FB Operation |
| | DI202 | di | FB Hand |
| | DI203 | di | FB Open |
| | DI204 | di | FB Close |
| | DI205 | pb | Push Button |
| DO | DO001 | sw | Switching Command |
| | DO002 | sw | Digital Output |
| | DO101 | do | Set |
| VAI | VAI001 | sp | Setpoint |
| | VAI002 | csp | Calc. Setpoint |
| | VAI003 | mn | Limit Value |
| VAI | VAI004 | mn | Foot Point |
| | VAI005 | mx | Slope |
| | VAI006 | par.kp | Proportional Band |
| | VAI007 | par.ti | Integral Action Time |
| | VAI008 | par.ti | Derivative action time |
| | VAI009 | mx | Limit value Day |
| | VAI010 | mn | Limit value Night |
| VDI | VDI001 | tc | Time program |
| | VDI002 | di | Plant release |

## 13.2 House address configuration

Next, you should configure your house address structure so that it suits your needs and fulfils the novaWeb requirements.

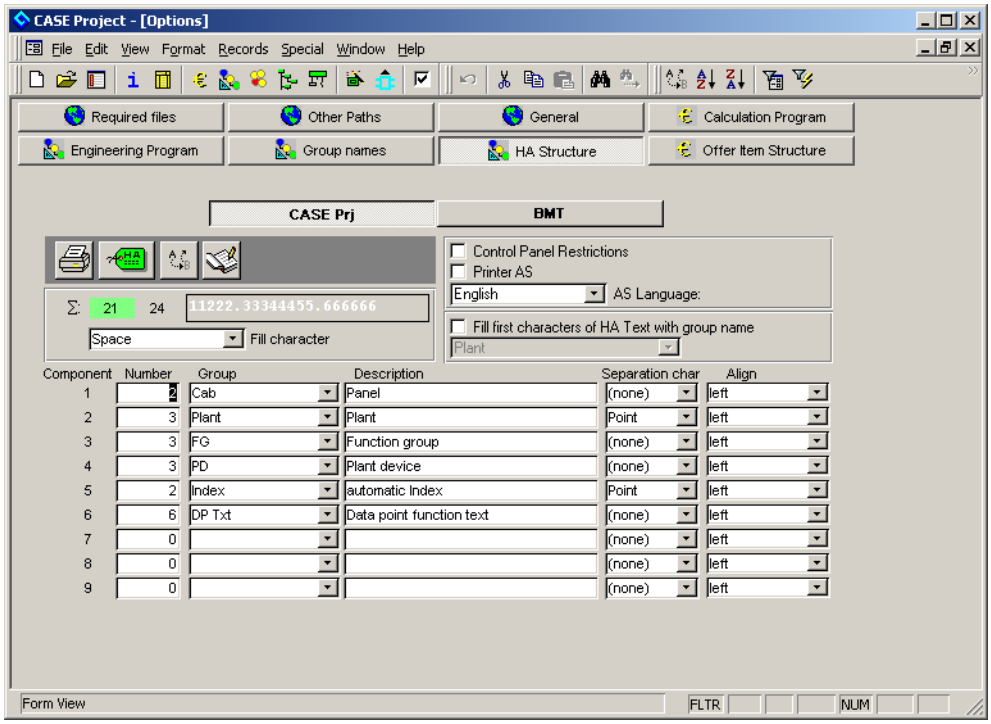
### 13.2.1 Data point text/index

Keep in mind that novaWeb primarily works according to the extension of up to 6 characters. Therefore, you have to specify the last 6 characters for the data point text. The index can be added to the function or plant device group to create unique house addresses.

### 13.2.2 EYT 240 operating unit

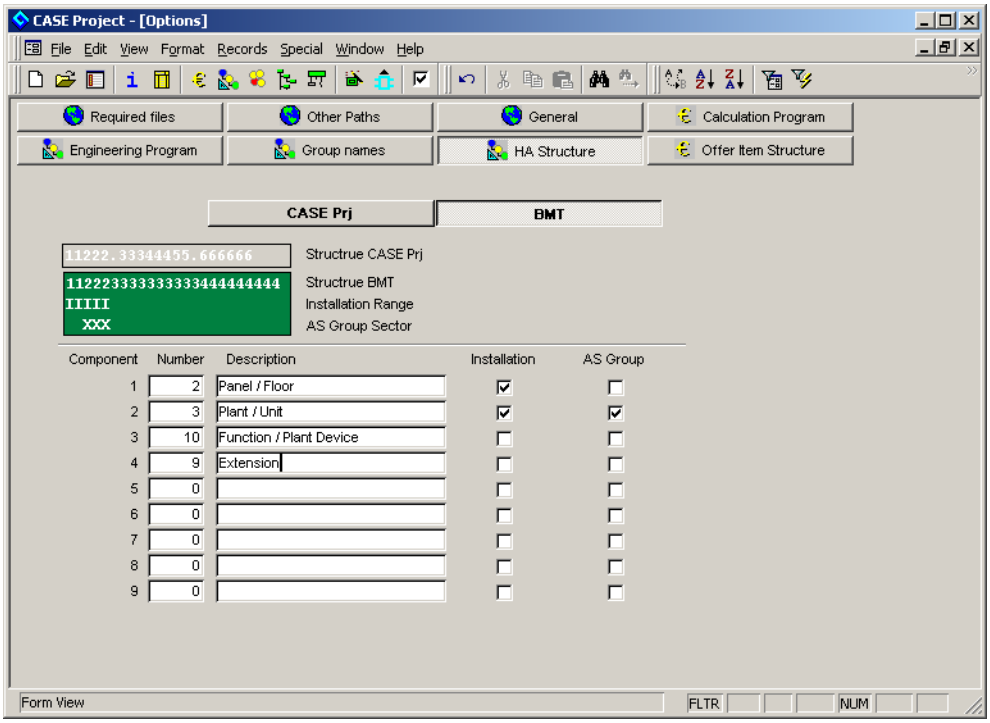
The extension can vary between 2 and 6 characters. If the EYT 240 operating unit is used on site as well, the house addresses should be reduced to 21 characters (which should be sufficient for small installations that are normally

used with novaWeb). Otherwise, the house address of some data points will be shown in one line and others in two lines.




### 13.2.3 AS groups

If you want to work with AS groups, the ‘AS group’ part of the house address should still be within the system or installation part (first of part of the novaWeb house naming standard). In this case, each AS group will be shown as an individual page (installation).




This example creates the house addresses according to your CASE Builder settings. When working with Case Engine or novaPro32, the addresses will be shown according to the logical house address structure; with novaWeb, they are displayed according to the naming standard:-

| CASE Prj settings | Cab | Plant | FG | PD | Index | DPTxt |
|---|---|---|---|---|---|---|
| BMT logical HA structure | Panel/Floor | Plant/Unit | Function | | | DPTxt or Ext |
| novaWeb naming standard | System or Installation | | Function | | | Data Point Extension |

## 13.3 Grouping of data points (function groups)

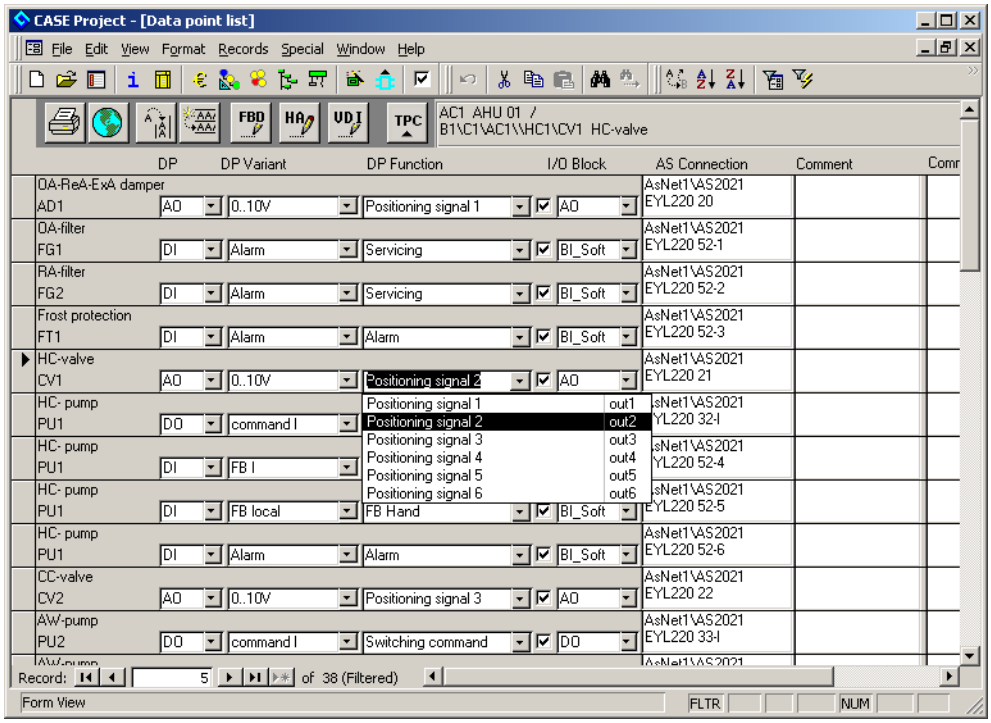
Since the CASE Builder libraries don't include the position of a data point within a control loop, you have to specify this (e.g. if it is the main sensor or a compensation sensor, or if it is the first or second output signal) yourself.

### 13.3.1 Multiple signals of same type

If the data points of a control loop should be grouped together, the meaning or position of these data points has to be specified. Which means that a control loop consists of one main sensor (***ms***), one or several outputs (***out1, out2***, ..), none or one or several compensation sensors (***cs, cs1,***..) and so on.

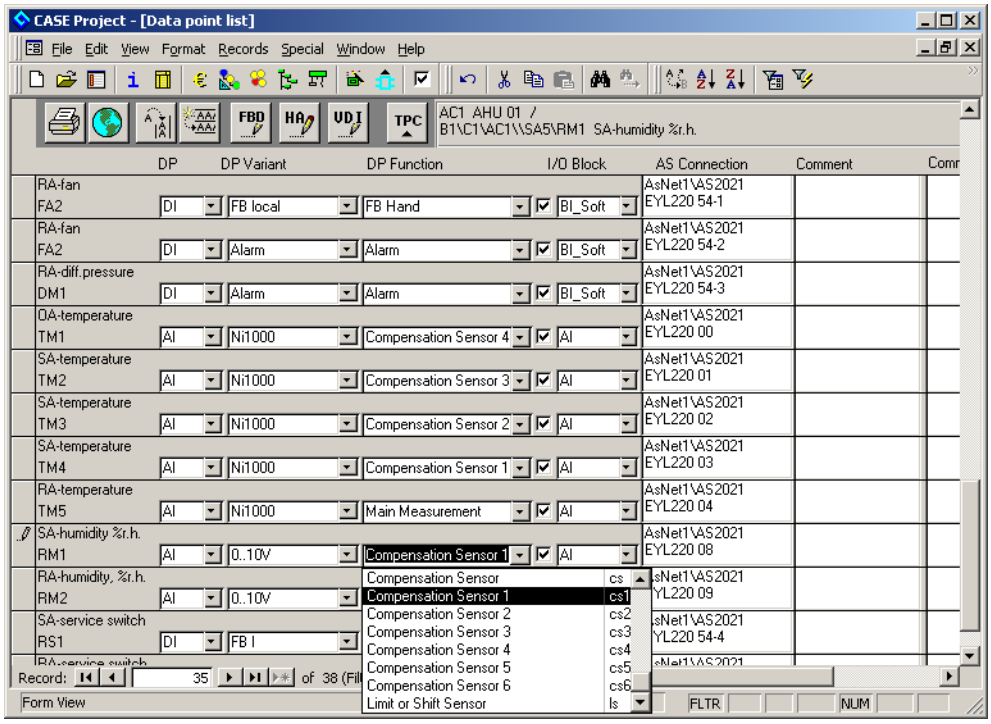
### 13.3.2 Output signals

A DP function (***out1, out2,***..) has to be stated for each output signal within one control loop.


CASE Project - [Data point list]
File Edit View Format Records Special Window Help
AC1 AHU 01 /
B1\C1\AC1\\HC1\CV1 HC-valve
DP DP Variant DP Function I/O Block AS Connection Comment
OA-ReA-ExA damper AD1 AO 0..10V Positioning signal 1 AO AsNet1\AS2021 EYL220 20
OA-filter FG1 DI Alarm Servicing BI_Soft AsNet1\AS2021 EYL220 52-1
RA-filter FG2 DI Alarm Servicing BI_Soft AsNet1\AS2021 EYL220 52-2
Frost protection FT1 DI Alarm Alarm BI_Soft AsNet1\AS2021 EYL220 52-3
HC-valve CV1 AO 0..10V Positioning signal 2 AO AsNet1\AS2021 EYL220 21
HC- pump PU1 DO command I
HC- pump PU1 DI FB I
HC- pump PU1 DI FB local FB Hand BI_Soft
HC- pump PU1 DI Alarm Alarm BI_Soft
CC-valve CV2 AO 0..10V Positioning signal 3 AO AsNet1\AS2021 EYL220 22
AW-pump PU2 DO command I Switching command DO AsNet1\AS2021 EYL220 33-I
Positioning signal 1 out1
Positioning signal 2 out2
Positioning signal 3 out3
Positioning signal 4 out4
Positioning signal 5 out5
Positioning signal 6 out6
Record: 5 of 38 (Filtered)
Form View
FLTR
NUM

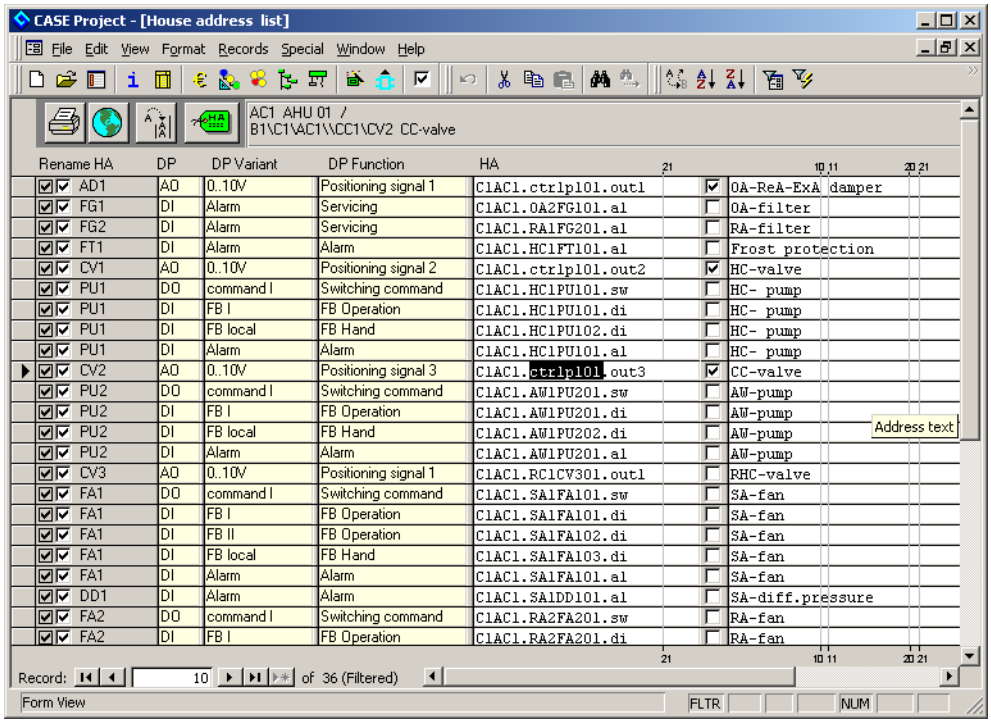
### 13.3.3 Compensation sensors

As with the output signals, you also have to specify the DP function for your main sensor (***ms***) and your compensation sensors (***cs***).


CASE Project - [Data point list]
File Edit View Format Records Special Window Help
AC1 AHU 01 /
B1\C1\AC1\\SA5\RM1 SA-humidity %r.h.
DP DP Variant DP Function I/O Block AS Connection Comment
RA-fan FA2 DI FB local FB Hand BI_Soft AsNet1\AS2021 EYL220 54-1
RA-fan FA2 DI Alarm Alarm BI_Soft AsNet1\AS2021 EYL220 54-2
RA-diff.pressure DM1 DI Alarm Alarm BI_Soft AsNet1\AS2021 EYL220 54-3
OA-temperature TM1 AI Ni1000 Compensation Sensor 4 AI AsNet1\AS2021 EYL220 00
SA-temperature TM2 AI Ni1000 Compensation Sensor 3 AI AsNet1\AS2021 EYL220 01
SA-temperature TM3 AI Ni1000 Compensation Sensor 2 AI AsNet1\AS2021 EYL220 02
SA-temperature TM4 AI Ni1000 Compensation Sensor 1 AI AsNet1\AS2021 EYL220 03
RA-temperature TM5 AI Ni1000 Main Measurement AI AsNet1\AS2021 EYL220 04
SA-humidity %r.h. RM1 AI 0..10V Compensation Sensor 1 AI AsNet1\AS2021 EYL220 08
RA-humidity, %r.h. RM2 AI 0..10V
SA-service switch RS1 DI FB I
Compensation Sensor cs
Compensation Sensor 1 cs1
Compensation Sensor 2 cs2
Compensation Sensor 3 cs3
Compensation Sensor 4 cs4
Compensation Sensor 5 cs5
Compensation Sensor 6 cs6
Limit or Shift Sensor ls
Record: 35 of 38
Form View
FLTR
NUM

### 13.3.3.1 Grouping

Next, you can group all data points of your control loop together by modifying the function part of the house address.


CASE Project - [House address list]
File Edit View Format Records Special Window Help
AC1 AHU 01 /
B1\C1\AC1\\CC1\CV2 CC-valve
Rename HA | DP | DP Variant | DP Function | HA | 21 | 10 11 | 20 21
AD1 | AO | 0..10V | Positioning signal 1 | C1AC1.ctrlpl01.out1 | OA-ReA-ExA damper
FG1 | DI | Alarm | Servicing | C1AC1.OA2FG101.al | OA-filter
FG2 | DI | Alarm | Servicing | C1AC1.RA1FG201.al | RA-filter
FT1 | DI | Alarm | Alarm | C1AC1.HC1FT101.al | Frost protection
CV1 | AO | 0..10V | Positioning signal 2 | C1AC1.ctrlpl01.out2 | HC-valve
PU1 | DO | command I | Switching command | C1AC1.HC1PU101.sw | HC- pump
PU1 | DI | FB I | FB Operation | C1AC1.HC1PU101.di | HC- pump
PU1 | DI | FB local | FB Hand | C1AC1.HC1PU102.di | HC- pump
PU1 | DI | Alarm | Alarm | C1AC1.HC1PU101.al | HC- pump
CV2 | AO | 0..10V | Positioning signal 3 | C1AC1.ctrlpl01.out3 | CC-valve
PU2 | DO | command I | Switching command | C1AC1.AW1PU201.sw | AW-pump
PU2 | DI | FB I | FB Operation | C1AC1.AW1PU201.di | AW-pump
PU2 | DI | FB local | FB Hand | C1AC1.AW1PU202.di | AW-pump
PU2 | DI | Alarm | Alarm | C1AC1.AW1PU201.al | AW-pump
CV3 | AO | 0..10V | Positioning signal 1 | C1AC1.RC1CV301.out1 | RHC-valve
FA1 | DO | command I | Switching command | C1AC1.SA1FA101.sw | SA-fan
FA1 | DI | FB I | FB Operation | C1AC1.SA1FA101.di | SA-fan
FA1 | DI | FB II | FB Operation | C1AC1.SA1FA102.di | SA-fan
FA1 | DI | FB local | FB Hand | C1AC1.SA1FA103.di | SA-fan
FA1 | DI | Alarm | Alarm | C1AC1.SA1FA101.al | SA-fan
DD1 | DI | Alarm | Alarm | C1AC1.SA1DD101.al | SA-diff.pressure
FA2 | DO | command I | Switching command | C1AC1.RA2FA201.sw | RA-fan
FA2 | DI | FB I | FB Operation | C1AC1.RA2FA201.di | RA-fan
Address text
Record: 10 of 36 (Filtered)
Form View
FLTR
NUM

## 13.4 FBD parameters

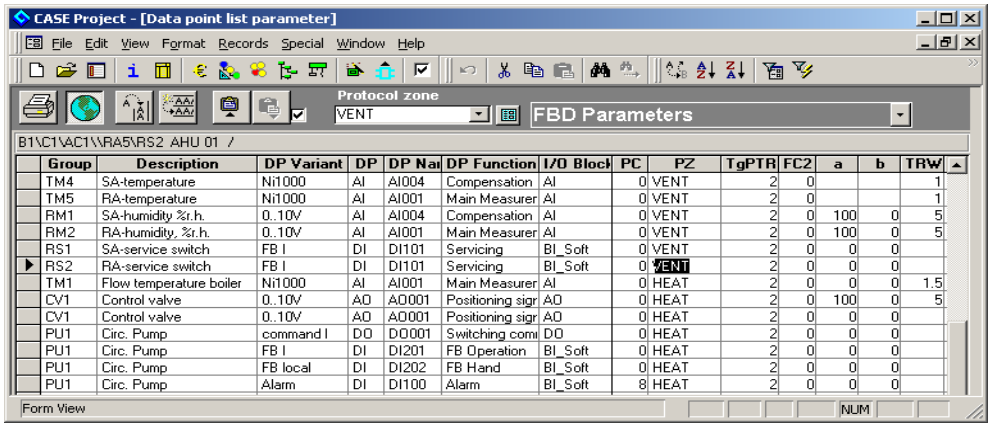
One of the great advantages of CASE Builder is the possibility to specify certain data point parameters in a list called FBD parameters.

### 13.4.1 Alarm indication

In the case of an alarm, please make sure that the alarm/status indication (fAISt) has been set to alarm, and that it has been set to status for a status.

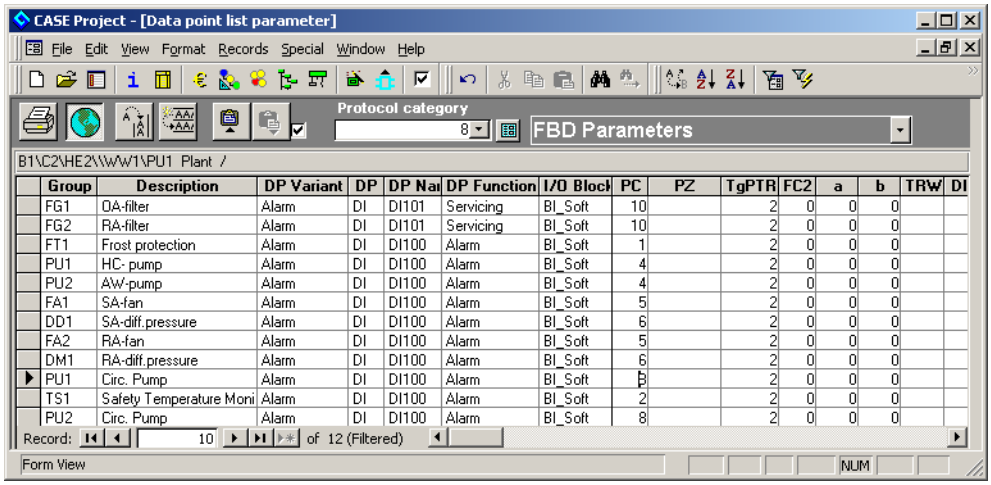
### 13.4.2 Alarm domains/protocol zone

If you want to use the domain or zone indication in the event list or in the alarm or event transmission via e-mail, you have to specify this parameter.


CASE Project - [Data point list parameter]
File Edit View Format Records Special Window Help
Protocol zone
VENT
FBD Parameters
B1\C1\AC1\\RA5\RS2 AHU 01 /
Group Description DP Variant DP DP Nai DP Function I/O Block PC PZ TgPTR FC2 a b TRW
TM4 SA-temperature Ni1000 AI AI004 Compensation AI 0 VENT 2 0 1
TM5 RA-temperature Ni1000 AI AI001 Main Measurer AI 0 VENT 2 0 1
RM1 SA-humidity %r.h. 0..10V AI AI004 Compensation AI 0 VENT 2 0 100 0 5
RM2 RA-humidity, %r.h. 0..10V AI AI001 Main Measurer AI 0 VENT 2 0 100 0 5
RS1 SA-service switch FB I DI DI101 Servicing BI_Soft 0 VENT 2 0 0 0
RS2 RA-service switch FB I DI DI101 Servicing BI_Soft 0 VENT 2 0 0 0
TM1 Flow temperature boiler Ni1000 AI AI001 Main Measurer AI 0 HEAT 2 0 0 0 1.5
CV1 Control valve 0..10V AO AO001 Positioning sigr AO 0 HEAT 2 0 100 0 5
CV1 Control valve 0..10V AO AO001 Positioning sigr AO 0 HEAT 2 0 0 0
PU1 Circ. Pump command I DO DO001 Switching comi DO 0 HEAT 2 0 0 0
PU1 Circ. Pump FB I DI DI201 FB Operation BI_Soft 0 HEAT 2 0 0 0
PU1 Circ. Pump FB local DI DI202 FB Hand BI_Soft 0 HEAT 2 0 0 0
PU1 Circ. Pump Alarm DI DI100 Alarm BI_Soft 8 HEAT 2 0 0 0
Form View
NUM

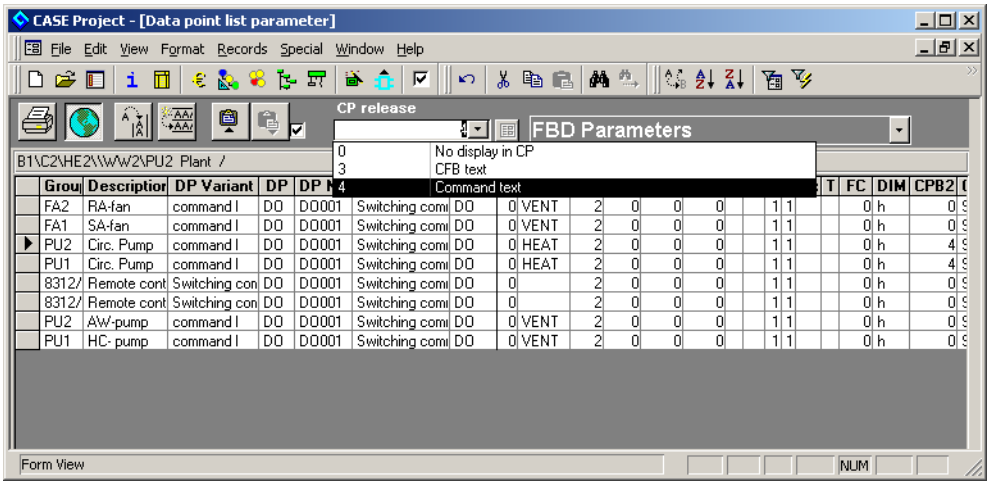
### 13.4.3 Alarm priorities/protocol category

The alarm priority is used to sort the alarms in the alarm list and can be used in alarm transmissions via e-mail as well.


CASE Project - [Data point list parameter]
File Edit View Format Records Special Window Help
Protocol category
8
FBD Parameters
B1\C2\HE2\\WW1\PU1 Plant /
Group Description DP Variant DP DP Nai DP Function I/O Block PC PZ TgPTR FC2 a b TRW DI
FG1 OA-filter Alarm DI DI101 Servicing BI_Soft 10 2 0 0 0
FG2 RA-filter Alarm DI DI101 Servicing BI_Soft 10 2 0 0 0
FT1 Frost protection Alarm DI DI100 Alarm BI_Soft 1 2 0 0 0
PU1 HC- pump Alarm DI DI100 Alarm BI_Soft 4 2 0 0 0
PU2 AW-pump Alarm DI DI100 Alarm BI_Soft 4 2 0 0 0
FA1 SA-fan Alarm DI DI100 Alarm BI_Soft 5 2 0 0 0
DD1 SA-diff.pressure Alarm DI DI100 Alarm BI_Soft 6 2 0 0 0
FA2 RA-fan Alarm DI DI100 Alarm BI_Soft 5 2 0 0 0
DM1 RA-diff.pressure Alarm DI DI100 Alarm BI_Soft 6 2 0 0 0
PU1 Circ. Pump Alarm DI DI100 Alarm BI_Soft 3 2 0 0 0
TS1 Safety Temperature Moni Alarm DI DI100 Alarm BI_Soft 2 2 0 0 0
PU2 Circ. Pump Alarm DI DI100 Alarm BI_Soft 8 2 0 0 0
Record: 10 of 12 (Filtered)
Form View
NUM

### 13.4.4 Command text

If you want to make a command data point switch able, you have to set the parameter CP release to 4 ‘Command text’.


CASE Project - [Data point list parameter]
File Edit View Format Records Special Window Help
CP release
FBD Parameters
B1\C2\HE2\\WW2\PU2 Plant /
0 No display in CP
3 CFB text
4 Command text
Grou Description DP Variant DP DP
FA2 RA-fan command I DO DO001 Switching comi DO 0 VENT 2 0 0 0 1 1 0 h 0
FA1 SA-fan command I DO DO001 Switching comi DO 0 VENT 2 0 0 0 1 1 0 h 0
PU2 Circ. Pump command I DO DO001 Switching comi DO 0 HEAT 2 0 0 0 1 1 0 h 4
PU1 Circ. Pump command I DO DO001 Switching comi DO 0 HEAT 2 0 0 0 1 1 0 h 4
8312/ Remote cont Switching con DO DO001 Switching comi DO 0 2 0 0 0 1 1 0 h 0
8312/ Remote cont Switching con DO DO001 Switching comi DO 0 2 0 0 0 1 1 0 h 0
PU2 AW-pump command I DO DO001 Switching comi DO 0 VENT 2 0 0 0 1 1 0 h 0
PU1 HC- pump command I DO DO001 Switching comi DO 0 VENT 2 0 0 0 1 1 0 h 0
Form View
NUM

# 14 Working with CASE Engine

Please refer to the CASE Engine manual for general information on CASE Engine programming.

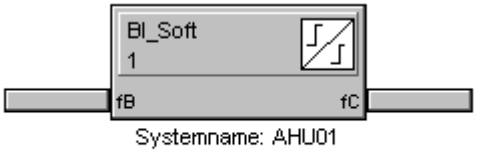
## 14.1 Scanning and refreshing novaWeb pages

novaWeb scans the AS on the novaNet after each booting (start-up and reboot) and after a garbage collection. After a download of the whole function plan, a garbage collection will be executed. This will lead to an update of most novaWeb tables. To make sure everything is updated, please reboot the novaWeb station.

## 14.2 System/installation data point

Per default, the first house address part is taken as the installation name. This installation name is shown as the selection item (installation list) in the navigation frame.

To give a proper name to an installation, you can add a data point to it. The first part of the house address of this data point must be the same as the other data points of this installation. The installation name will then be specified by the address text.




You should not use this option for AS groups. Since all members of the AS group would have the same address text, this would mean the same (address) text would be used to distinguish these units in the navigation frame. Preferably, you should set up the house address in a way that the units can be identified by the house address (e.g. F01R03 for Floor 01 Room 03).

## 14.3 Devices

The devices section shows the time schedule (***tc***) and digital information (***di/do***) data points.

### 14.3.1 Time schedule (tc)

Time schedules are defined as a point named ***tc***. (Also function might be used if point is missing. I.e. both ta10.tc and ta10.supfan.tc are possible). Time schedules reside in the novaWeb and the current status is written to the AS.

A time schedule is presented as:

| Device | Status | Command | Alarm |
|---|---|---|---|
| Description of sys.function.tc | ***tc*** | ***tc*** | |

Example:

| Device | Status | Command | Alarm |
|---|---|---|---|
| Supply fan TA10-TF1 schedule | On | Change | |

‚Status' shows the current state of the time schedule; ‚Command' shows a link to verify or modify the current time schedule.

From the version V.2.3..2 you have to use a DI-Soft instead of a DIA-Soft before. Furthermore, you have to change some parameters of th DI-Soft:.

- CPB2 = Command
- CTxt0 = Aus (or as wished)
- CTxtI = Ein (or as wished)
- CTxtII - CTxtVI ... please enter nothing
- fCP0 = Yes
- fCPI = Yes
- fCPII - fCPVI = No

NOTE:
In addition to ta10.tc, it is possible to add other data points than ta10.tcn.

| | | |
|---|---|---|
| **tcn** | next change | remaining time until the next change in s. |

### 14.3.2 Digital indication (di)

Is defined as a point named ***di***. If ***di*** is missing and ***do*** is found, the latter will be used instead. Other points which can be bound to the same system function are:-

| | | |
|---|---|---|
| ***do*** | Digital order | Digital status indicating the AS order to a function such as a pump where ***di*** is used for feedback. (Writeable value) |
| ***sw*** | Command switch | Writeable multi-stage value accepting manual command to a function. Must support ON, OFF, AUTO |
| ***pb*** | Push button | Writeable digital point accepting a 0-1-0 transaction with a duration of about 1 minute. |
| ***sp*** | Setpoint | Writeable numeric value accepting some sort of setpoint such as a temperature used to start a pump. |
| ***al*** | Alarm | Binary status indicating alarm condition such as pump not running |

For ***pb***, the description is checked for a comma and the left part is used as a command on the button, i.e. the description “Test, fire dampers” will label the button “Test”.

An indication is presented as:

| Device | Status | Command | Alarm |
|---|---|---|---|
| Description of system.function.do else .di | di else do | sw or pb else sp | al |

Example:-

| Device | Status | Command | Alarm |
|---|---|---|---|
| Pump VS1 | On | Auto | OK |
| Fire Dampers | Off | Test | OK |

## 14.4 Control loops

A control loop is always defined by a main sensor (***ms***) plus its assigned data points.

### 14.4.1 Main sensor (ms)

Is defined as a point named ***ms***. Other points which can be bound to the same system function are:

| | | |
|---|---|---|
| ***di*** | Digital indication | Digital (binary) status indicating that the control loop is active |
| ***cs*** | Compensation sensor | Numeric value used to calculate setpoint such as outdoor temperature |
| ***ls*** | Limit sensor | Numeric value used to limit the main control loop such as the indoor temperature for a supply-air controller |
| ***sp*** | Setpoint | Writeable numeric value accepting some sort of setpoint such as a temperature used to start a pump. |
| ***csp*** | Calculated setpoint | Numeric value with the calculated setpoint such as a supply temperature for an outdoor-compensated control loop. (Writeable value) |
| ***al*** | Alarm | Binary status indicating alarm condition such as control loop deviation |
| ***out*** | Output | Numeric value with the output from the main control loop. |
| ***out1 .. 6*** | Sequence output | Numeric value with the output from one of the sequences such as a cooler or heater |

Setpoint can be a single ***sp*** for a single setpoint or a ***csp*** with a set of ***sp.p1 .. sp.p6*** for a calculated setpoint using a compensation curve with 2 to 6 break points. Also ***sp.x1 .. 6*** combined with ***sp.y1 .. 6*** can be used for compensations where the break points are changeable along both axis.

Since the sequence output might be used in more than one control loop, they can be displayed after all control loops. See below.

When displaying historical graphics, ***ms***, ***sp*** and ***out*** are used.

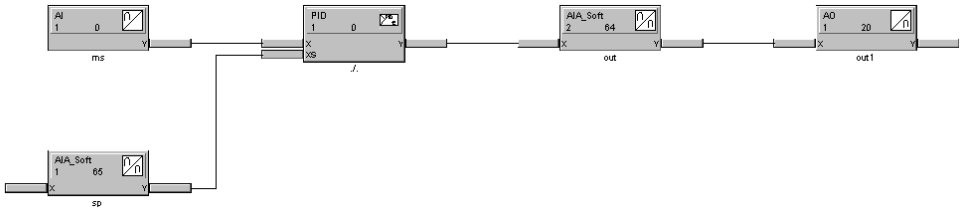
A control loop is presented as:

| Control loops | Actual | Setpoint | Alarm |
|---|---|---|---|
| Description of system.function.ms and colour coded from .di | History | | |
| Description of system.function.cs | cs | | |
| Description of system.function.ms | ms | csp else sp and link to sp | al |
| Description of system.function.ls | ls | | |
| Description of system.function.out1 | out1 | | |

Example:

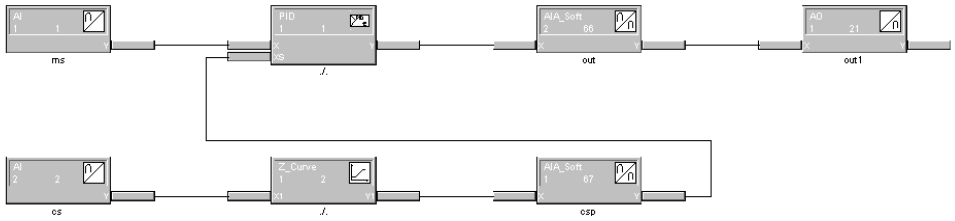
| Control loops | Actual | Setpoint | Alarm |
|---|---|---|---|
| Supply air temperature TA10-GT101 | History | | |
| Outdoor temperature GT301-NORTH | 4.1 °C | | |
| Supply-air temperature TA10-GT101 | 19.0 °C | 20.0 °C | OK |
| Return-air temperature TA10-GT102 | History | | |
| Return-air temperature TA10-GT102 | 19.0 °C | 20.0 °C | OK |

Standard Controller




| | | |
|---|---|---|
| Room Temperature CR01 | History | |
| Room Temperature CR01 | 22.1 °C | 20 °C |
| Heating Valve | 29.1 % | |

### 14.4.2 Controller with 1 compensation




| | | |
|---|---|---|
| Supply Temperature B1 | History | |
| Outside Temperature | 46.6 °C | |
| Supply Temperature B1 | 49.5 °C | 46.6 °C |
| Heating Valve | 0 % | |

Multiple compensations are also possible.

The calculated setpoint ***csp*** is expected to be calculated (by the AS) as ***csp = csp1 + csp2 + csp3***.

Each ***csp<N >*** is built using compensation sensor ***cs<N>*** and setpoint ***sp<N>*** in the same way that a single compensation is.

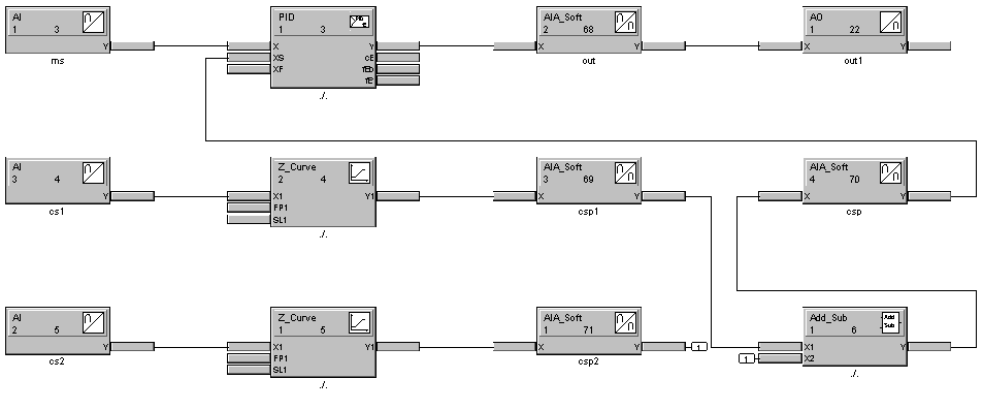
The base ***csp*** point must be provided but no base ***cs*** or ***sp*** are expected.

| Control loops | Actual | Setpoint | Alarm |
|---|---|---|---|
| Description of system.function.ms and colour coded from .di | History | | |
| Description of system.function.cs1 | cs1 | csp1 and link to sp1 | |
| Description of system.function.cs2 | cs2 | csp2 and link to sp2 | |
| Description of system.function.ms | ms | csp | al |
| Description of system.function.ls | ls | | |
| Description of system.function.out1 | out1 | | |

Example: Using a control loop compensating for outdoor temperature (***cs1***) and wind speed (***cs2***) will also need ***csp (=cs1+cs2), csp1, csp2, sp1*** and ***sp2*** but no ***cs*** or ***sp***.

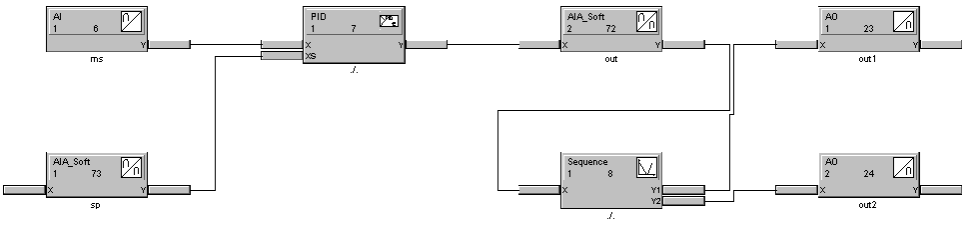
| Control loops | Actual | Setpoint | Alarm |
|---|---|---|---|
| Supply air temperature TA10-GT101 | History | | |
| Outdoor temperature GT301-NORTH | 4.1 °C | 18.0 °C | |
| Wind speed GV601 | 7.6 m/s | 1.1 °C | |
| Supply-air temperature TA10-GT101 | 19.0 °C | 19.1 °C | OK |

### 14.4.3 Controller with 2 compensations



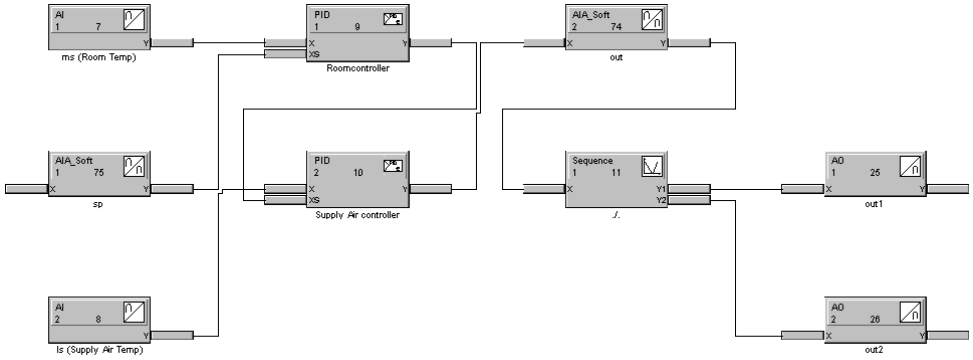

| | | |
|---|---|---|
| Supply Temperature B2 | History | |
| Outside Temperature B2 | 25.4 °C | 25.4 °C |
| Wind Speed | -10.4 m/s | -10.4 °C |
| Supply Temperature B2 | 2.8 °C | 14.9 °C |
| Heating Valve | 100 % | |

### 14.4.4 Controller with 2 outputs



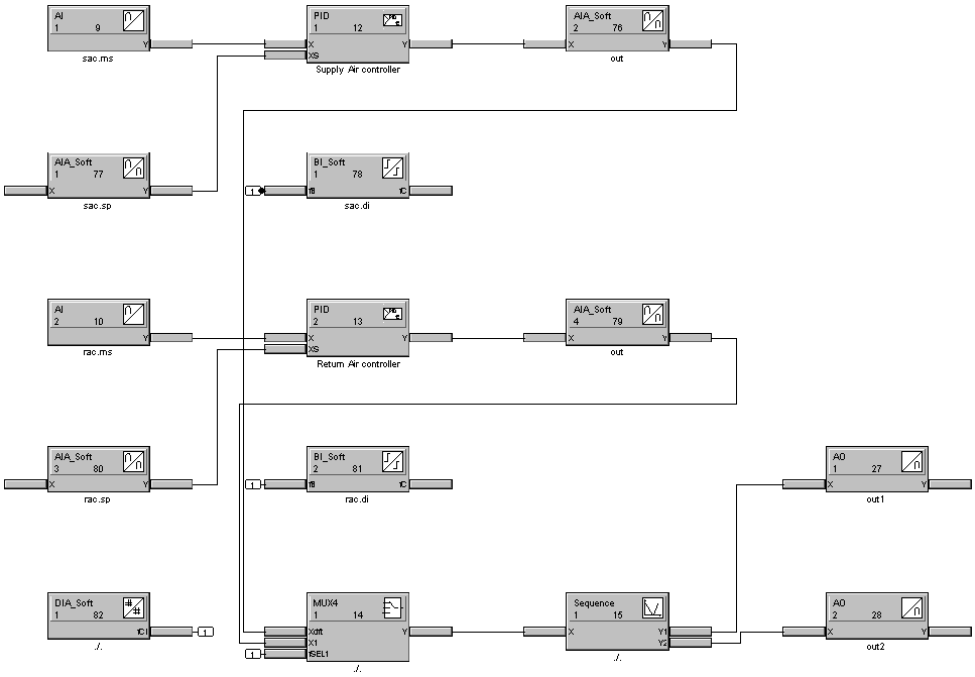

| Room Temperature CR2 | History | |
|---|---|---|
| Room Temperature CR2 | 14.6 °C | 20 °C |
| Heating Valve | 100 % | |
| Cooling Valve | 0 % | |

### 14.4.5 Cascade or limit controller




| Room Temperature | History | |
|---|---|---|
| Room Temperature | -16.7 °C | 0 °C |
| Supply-Air Temperature | 0 °C | |
| Heating Battery | 0 % | |

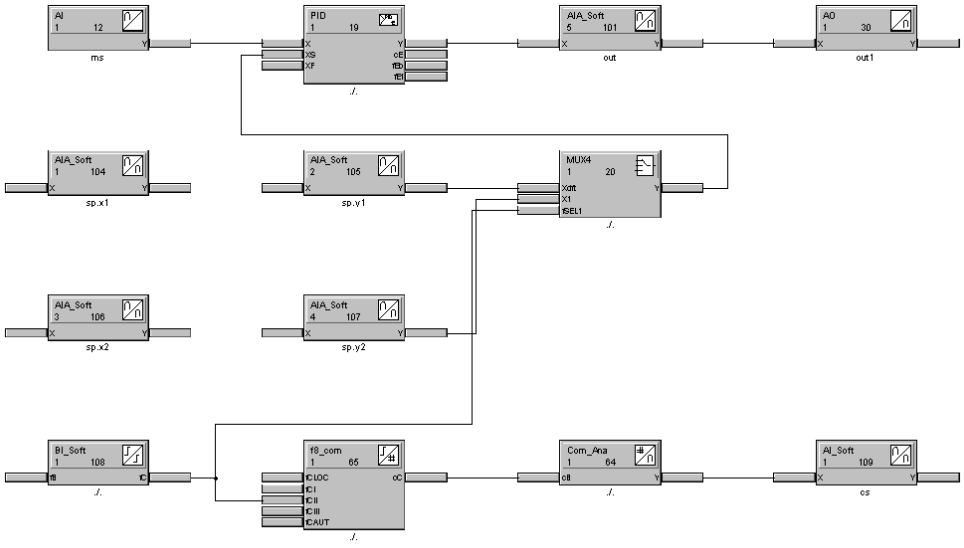
### 14.4.6 Selection between control signal for return air and supply air




| | | |
|---|---|---|
| Return-Air Temperature B3 | History | |
| Return-Air Temperature B3 | 20 °C | 20 °C |
| Supply-Air Temperature B3 | History | |
| Supply-Air Temperature B3 | 20.1 °C | 20 °C |

In this case, the di data point is used to indicate which control loop is active. The output signal(s) are shown in the output section.

### 14.4.7 Controller with 2 setpoints

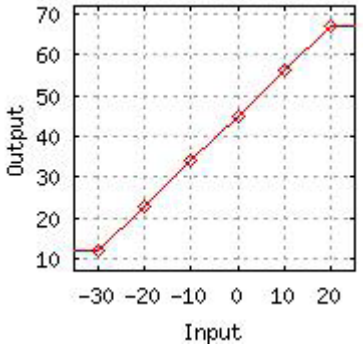


### 14.4.7.1 Calculated setpoint (*sp.p<N>*)

Setpoints can be a single ***sp*** for a single setpoint or a ***csp*** with a set of ***sp.p1 .. sp.p6*** for a calculated setpoint using a compensation curve with 2 to 6 break points. When working with a compensation curve, only the current setpoint will be shown in the system view. The link of the current setpoint will lead to a setpoint compensation curve.
Calculated setpoint with 6 definition points.

**Formularbeginn**

| Point | Input | Output |
|---|---|---|
| P1 | -30 | 12 |
| P2 | -20 | 23 |
| P3 | -10 | 34 |
| P4 | 0 | 45 |
| P5 | 10 | 56 |
| P6 | 20 | 67 |
| ECO | 0d | |
| Change Reset | | |




**Formularend**

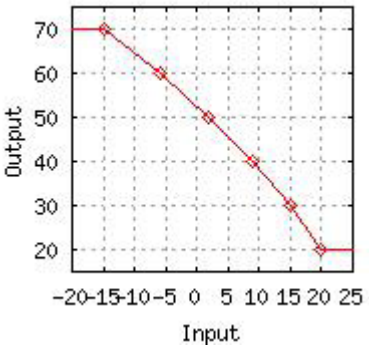
| | |
|---|---|
| Outside Temp GT3-NORTH | 20,1°C |
| Calculated Heating Setpoint | 67 °C |
| Supply Temp VS2-GT1 | 43,1 °C |

### 14.4.7.2 Calculated setpoint (*sp.x<N>/sp.y<N>*)

Also, ***sp.x1 .. 6*** combined with ***sp.y1 .. 6*** can be used for compensations where the break points are changeable along both axis.

**Formularbeginn**

| Point | Input | Output |
|---|---|---|
| P1 | -15 | 70 |
| P2 | -6 | 60 |
| P3 | 2 | 50 |
| P4 | 9 | 40 |
| P5 | 15 | 30 |
| P6 | 20 | 20 |
| Change Reset | | |




| Formularend | |
|---|---|
| Heating Setpoint | 45 °C |
| Boiler Temp | 46,4 °C |

#### 14.4.7.3 ECO

#### 14.4.7.4 Controller parameters (Xp and Ti)

The main controller parameters for proportional band (XP/***par.kp***) and integral time (ti/***par.ti***) will be shown only in the service or system maintenance list.

#### 14.4.7.5 .mn & .mx

The mn and mx extensions can be used for minimum and maximum or any other parameter value (shown only in service and system maintenance view).

### 14.5 Outputs

#### 14.5.1 Output (out)

Is defined as a point named ***out1 .. 6***
system.function must not match that of any control loop.

An output is presented as:-

| Outputs | Actual | Setpoint | Alarm |
|---|---|---|---|
| Description of system.function.out1 | out1 | | |
| Description of system.function.out2 | out2 | | |

Example:

| Outputs | Actual | Setpoint | Alarm |
|---|---|---|---|
| Cool valve SV1 | 0 % | | |
| Heat valve HV1 | 12 % | | |

## 14.6 Measurements and alarms

### 14.6.1 Common (cm)

Is defined as a point named ***cm***. Other points which can be bound to the same system.function are:-

| | | |
|---|---|---|
| ***al*** | Alarm | Binary status indicating alarm condition such control loop deviation |

A common is presented as:-

| | | |
|---|---|---|
| Measurement and alarm | | |
| Description of system.function.cm | cm | al |

Example:

| | | |
|---|---|---|
| Measurement and Alarm | | |
| Freeze watch temperature TA10-GT801 | 21.9 C | OK |

### 14.6.2 Meter (met)

Is defined as a point named ***met***. A meter value is supplied from the AS and is the derivation of the measured entity. I.e. for an energy meter, ***met*** is the mean power consumption calculated in multiples of 30 second intervals. A meter is presented as:-

| | |
|---|---|
| Measurement and alarm | |
| Description of system.function.met | met.dy |

Example:

| | |
|---|---|
| Measurement and alarm | |
| Energy meter M1 | 2345 kWh |

### 14.6.3 Runtime meter (rt)

If the di data point is configured with hours counter (FBD parameter FC), novaWeb creates a point named rt.

In fact, the actual metering is performed by the AS but is monitored and resett by the WDC.

| | | |
|---|---|---|
| ***di*** | Digital indication | A digital status on which to count runtime. (Hours- run counter must be active) |

Sub points generated by the novaWeb with the same system.function.point are:-

| | | |
|---|---|---|
| ***pb*** | Push button | Writeable digital point accepting a 0-1-0 transaction to reset the meter. |
| ***mx*** | Maximum | Writeable numeric value accepting the runtime limit |
| ***al*** | Alarm | Binary status indicating runtime > mx |

A runtime meter is presented as:-

| | | | |
|---|---|---|---|
| Measurement and alarm | | | |
| Runtime, Description of system.function.di | rt | pb | al |

Example:

| | | | |
|---|---|---|---|
| Measurement and alarm | | | |
| Runtime, TA10 | 2345 h | Reset | OK |

### 14.6.4 Alarm (al)

Any alarm which is not assigned to any other group will be shown as individual data point which is presented as:

| | |
|---|---|
| Measurement and alarm | |
| Description of system.function.al | al |

Example:

| | |
|---|---|
| Measurement and alarm | |
| Fire alarm | Alarm |

Next you have to specify a name for the new project and the directories where you want it to be placed.

Then you can modify the house addresses:-

After finishing the modification of the house addresses (and AS if necessary), the new project will be created.

# 15 Self-configuration process

## 15.1 Start-up process

### 15.1.1 Setting the AS time

The novaWeb time is written to all ASs (MFA60 DW6).

### 15.1.2 Surveillance of round-robin cycle

Continuous check for new ASs.

### 15.1.3 House-address query

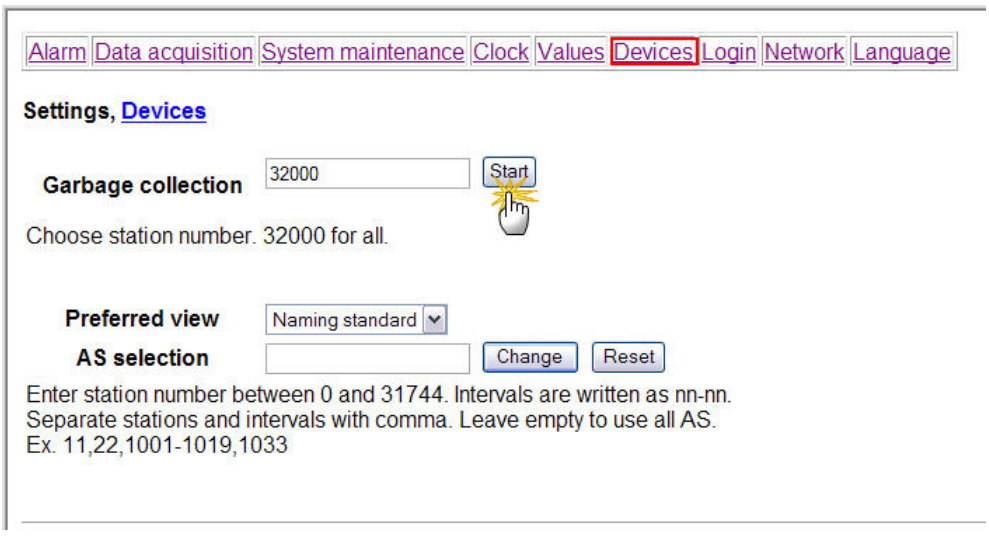
Each discovered AS is checked for configured house addresses (Vertical Query all MFA DW40)

### 15.1.4 Parameter query

All relevant parameters are read (Horizontal Query generated house addresses DW 22 - 55) for each configured house address.

## 15.2 Manual garbage collection

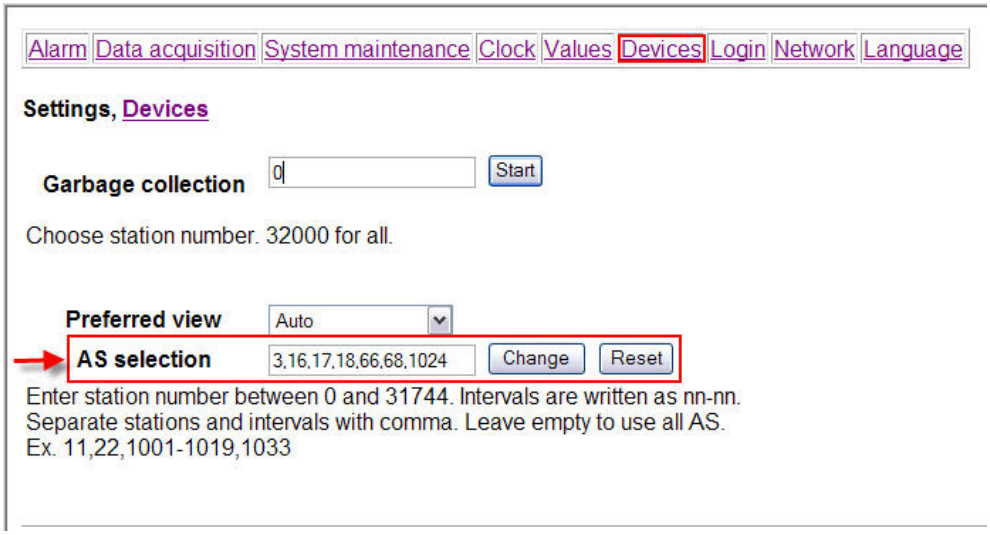
After each garbage collection, novaWeb rereads the contents of the AS. Whenever novaWeb discovers a new house address, it will add this data point to the data point data base. However, it will not delete data points, since it would also loose the historical data connected to this data point even if the data point is only temporarily not available.
The garbage collection occurs every night (exact time depending on the AS address) after each complete download from the FBD, or it can be executed manually from CASE HWC or via the System maintenance level within the novaWeb:-



Please be careful with the option to do a garbage collection for all ASs (address 32000) on a large novaNet, since it may lead to a rather long renewal of subscription time, especially when working simultaneously with further visualisation systems.

## 15.3 AS selection

If only a few ASs (e.g. out of a large novaNet) are to be treated, it is possible to specify which ASs to visualise. To be able to call up this menu item, it is necessary to log in on the System maintenance level.




Only the first 32 ASs of the selection will be treated. So if you specify AS 0-100,201,202, only the ASs 0 to 31 will be visualised. Even if, for instance, only AS 10, 20,30,201 and 202 exist, 201 and 202 won›t be visualised, since 32 ASs are expected in the range 0 to 31.

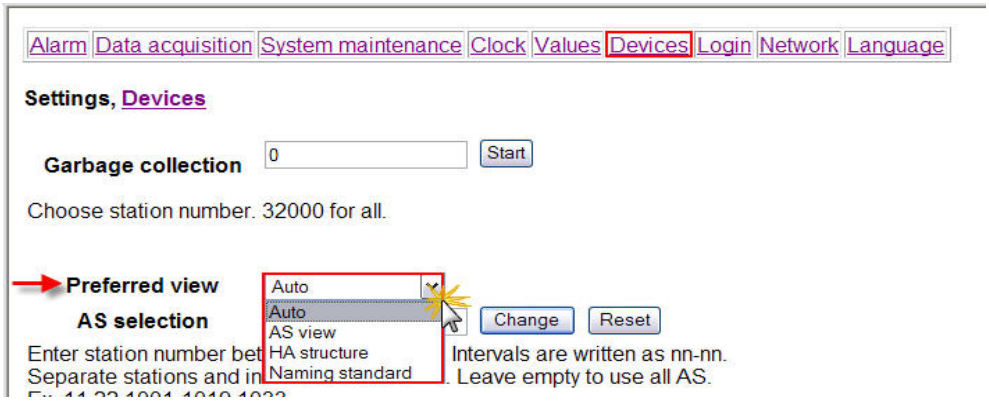
## 15.4 Preferred view

The views can be chosen (since 2.8.1):

- The 'classic' optimised view, which is derived from the house addresses and their extensions (naming standard).
- The installation view is derived from the house address structure (HA structure).
- The station view shows the addresses sorted according to their station allocation (AS view).
- In addition, the optimum view can be selected automatically (Auto). The check is then carried out in this order.

If an application module is set (MFA 63 DW 20 is 0 or 255), the installation view is derived from the house address structure (HA structure). If this is not the case, the naming standard is checked next. If the engineering is done using the naming standard (if, for instance .sp 'setpoint' and .ms 'mainsensor' of a data point are available), this view is used. If neither the house address structure nor the

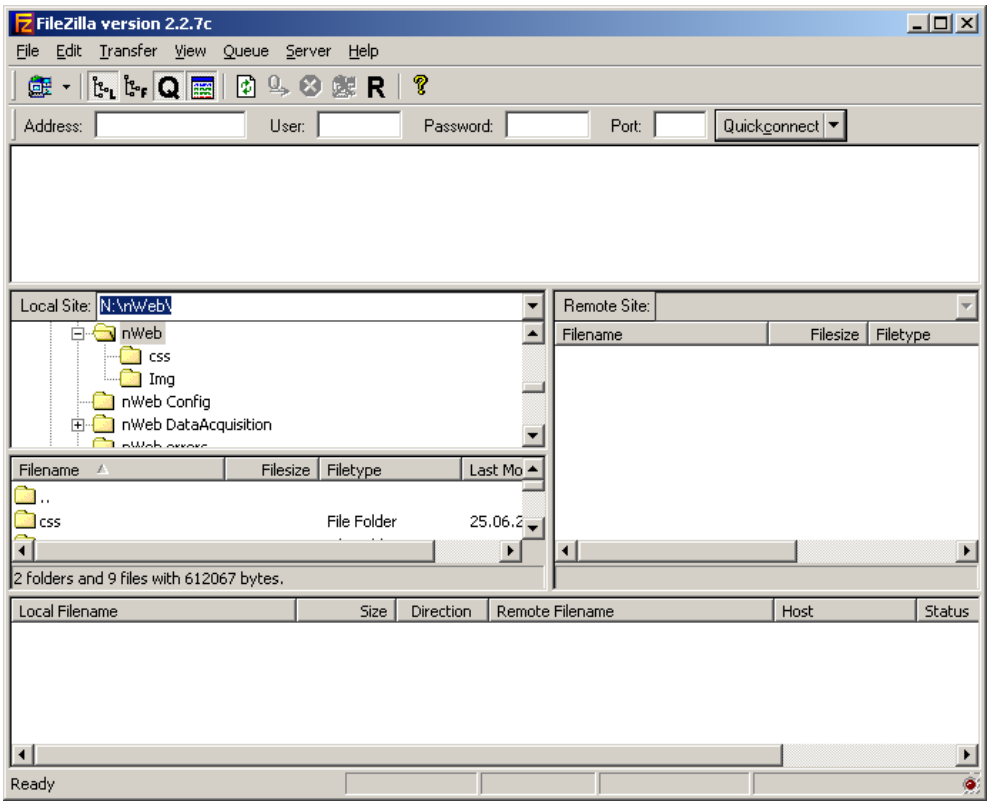
naming standard is used, the stations are shown in the AS view.



# 16 Customising

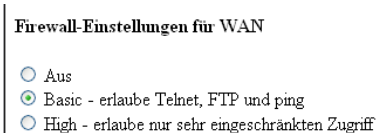
In general, the html pages are created automatically by the novaWeb by reading out the contents of the AS. However, it is possible to customise some html pages by downloading certain html or image files. To do this, you have to log in at Service or System Maintenance level. To reach the functions, select the Settings menu item in the navigation window and then the ‘System Maintenance’ link shown in the main window.

Another possible way of downloading HTML or image data is a data transfer via FTP. For the ftp download, we recommend the use of an ftp client like the GPL program Filezilla, which can be downloaded free of charge from http://filezilla.sourceforge.net.

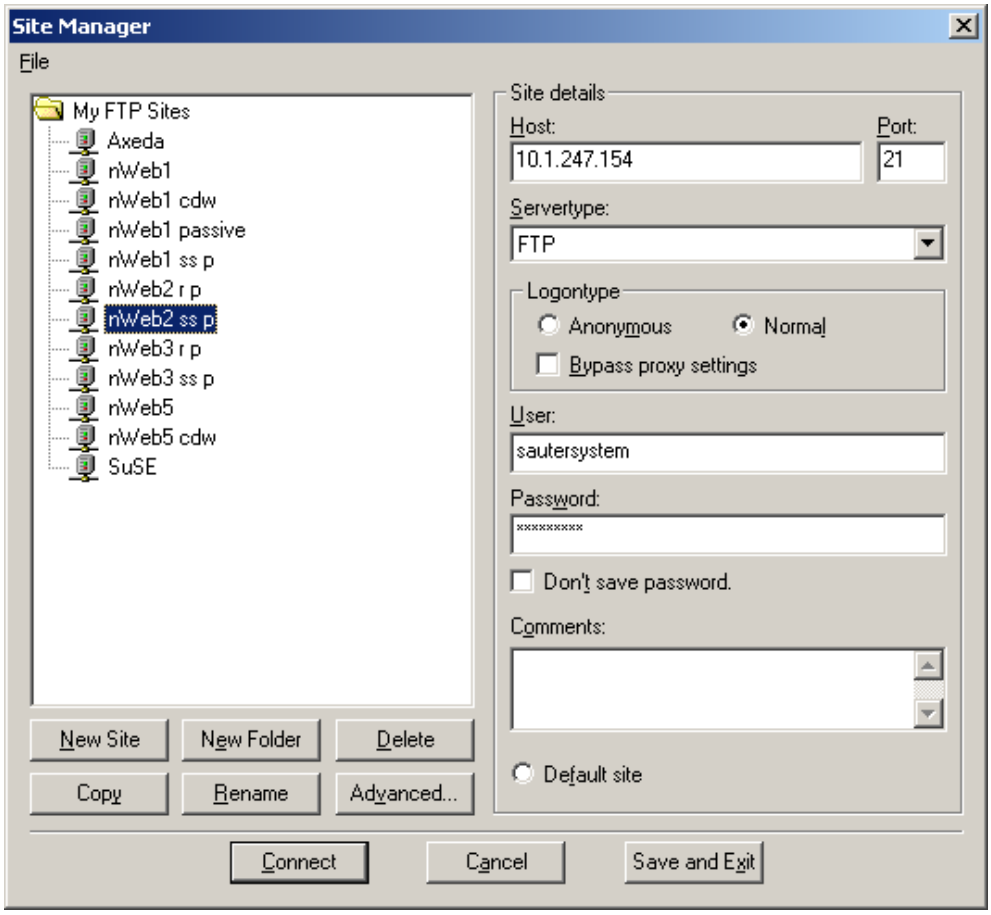



Make sure that the novaWeb firewall is set to ‘Off’ or ‘Basic’ (Settings/Network/Firewall settings for WAN) when working via the WAN connection. The firewall setting can be made only on the system maintenance level.

## 16.1 Firewall settings for WAN

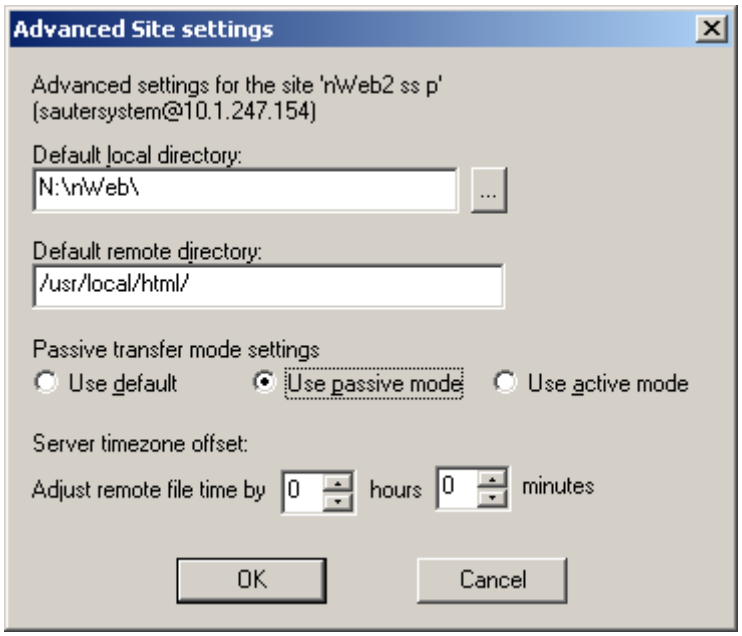


Then you can use the site manager to specify your novaWeb sites.




You just have to create a new site, specify the host IP and enter your user name and password.

Under ‚Advanced', you should set the use of the passive mode.



Furthermore, it is very useful to set the default directories.

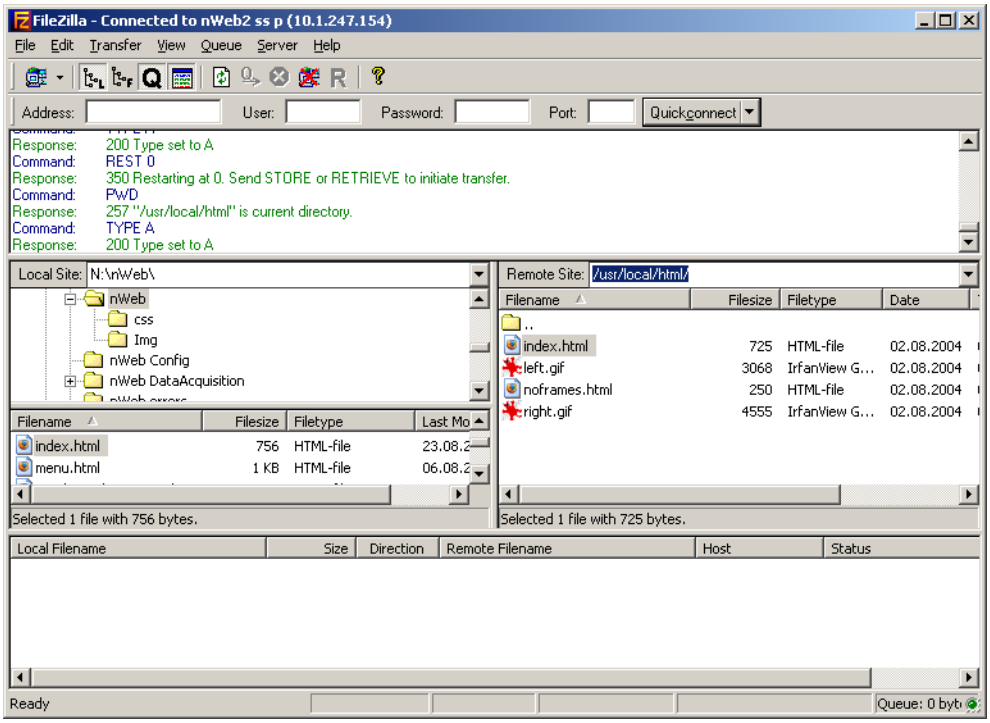
## 16.2 Index/frameset

If you connect to the novaWeb without any additional file selection (like starting the file menu for browser without frames), the index.html file is taken as the start page by default.

```
<html>

<head>
<meta HTTP-EQUIV="Content-Type" CONTENT="text/html;
charset=iso-8859-1">
<title>Sauter novaWeb VS Office</title>
</head>

<script language="Javascript">
  <!--
  if (screen.width <= 320) {
    document.location = "noframes.html";
  }
  //-->
</script>

<frameset rows="10%,*">
  <frame name="header" scrolling="no" target="content"
src="/cgi-bin/wdc.cgi?WDC-FUN=19">
  <frameset cols="20%,*">
    <frame name="content" target="main" src="/cgi-bin/wdc.
cgi?WDC-FUN=45" scrolling="auto">
    <frame name="main" src="/cgi-bin/wdc.cgi?WDC-FUN=9">
  </frameset>
  <noframes>
  <body>
  <h2>Sauter novaWeb</h2>
  <p>
    <a href="/cgi-bin/wdc.cgi?WDC-FUN=45&NOF=yes">Menu</a>
  </p>
  </body>
  </noframes>
</frameset>
</html>
```

### 16.2.1 Modifying

Since there is no editor available on the novaWeb, you have to upload the index.html file to your PC, modify it there and the download it back to your novaWeb.


FileZilla - Connected to nWeb2 ss p (10.1.247.154)
File Edit Transfer View Queue Server Help
Address: User: Password: Port: Quickconnect
Response: 200 Type set to A
Command: REST 0
Response: 350 Restarting at 0. Send STORE or RETRIEVE to initiate transfer.
Command: PWD
Response: 257 "/usr/local/html" is current directory.
Command: TYPE A
Response: 200 Type set to A
Local Site: N:\nWeb\
nWeb
css
Img
nWeb Config
nWeb DataAcquisition
Filename Filesize Filetype Last Mo
index.html 756 HTML-file 23.08.2
menu.html 1 KB HTML-file 06.08.2
Selected 1 file with 756 bytes.
Remote Site: /usr/local/html/
Filename Filesize Filetype Date
..
index.html 725 HTML-file 02.08.2004
left.gif 3068 IrfanView G... 02.08.2004
noframes.html 250 HTML-file 02.08.2004
right.gif 4555 IrfanView G... 02.08.2004
Selected 1 file with 725 bytes.
Local Filename Size Direction Remote Filename Host Status
Ready
Queue: 0 byt

Make sure to use ASCII transfer mode in both directions (when working with a Windows PC) or to use binary transfer mode.

### 16.2.2 Title

The title of this page (e.g. Sauter novaWeb VS Office) will be shown in your browser header line (or tab if you work with multiple tabs).

### 16.2.3 Small screens

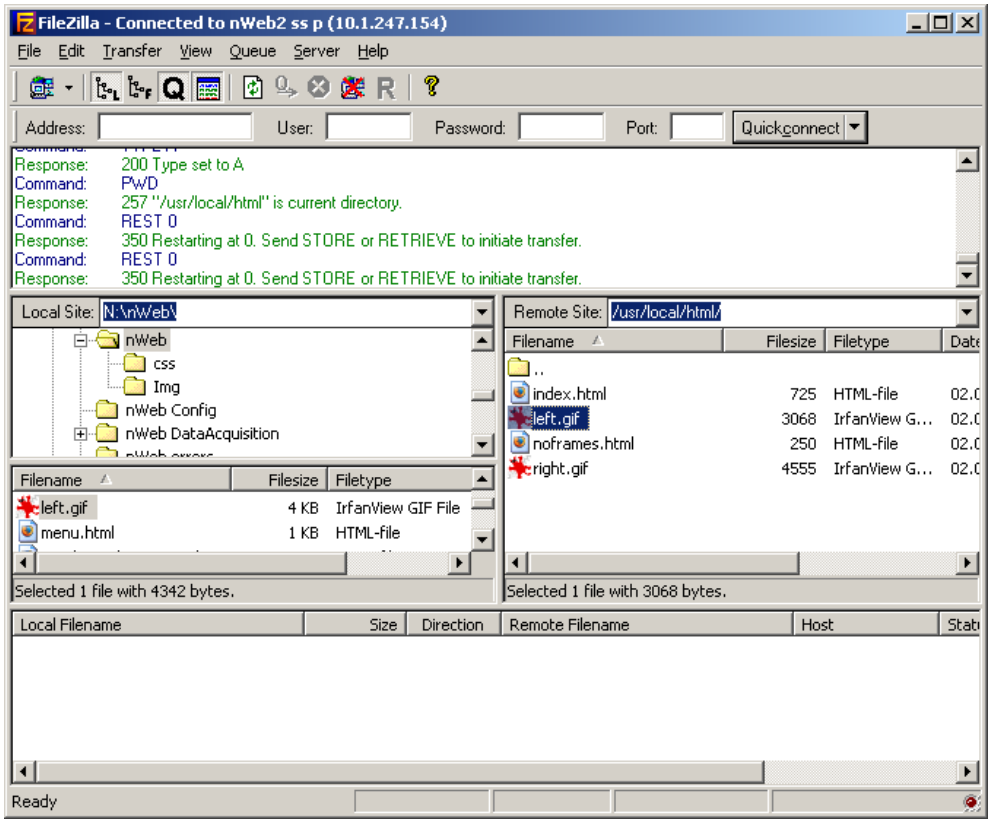
For devices like smartphones or palm tops with a small screen (width smaller than 320 pixel) the noframes.html page is taken as the start page (works only if JavaScript is enabled on the browser)

### 16.2.4 No frames

For browsers that cannot display frames, only the menu (navigation frame) is started (without header, navigation has to be done by going back to the menu after e.g. the system view)

## 16.3 Header icons

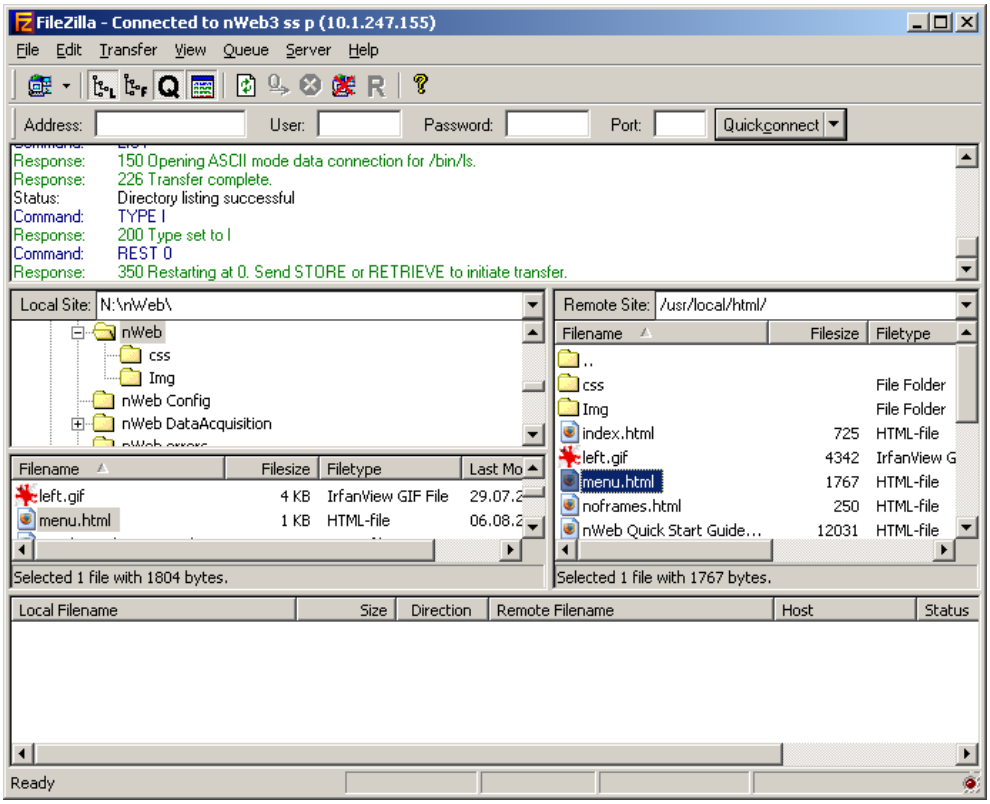
The icons that appear on the left (left.gif) and right (right.gif) in the header frame can be exchanged to any other image (which fits into the header). You just have to name it left.gif or right.gif and to download it via the ‘Download HTML’ menu item, or upload it via FTP to the usr/local/html folder of your novaWeb.


FileZilla - Connected to nWeb2 ss p (10.1.247.154)
File Edit Transfer View Queue Server Help
Address: User: Password: Port: Quickconnect
Response: 200 Type set to A
Command: PWD
Response: 257 "/usr/local/html" is current directory.
Command: REST 0
Response: 350 Restarting at 0. Send STORE or RETRIEVE to initiate transfer.
Command: REST 0
Response: 350 Restarting at 0. Send STORE or RETRIEVE to initiate transfer.
Local Site: N:\nWeb\
nWeb
css
Img
nWeb Config
nWeb DataAcquisition
Filename Filesize Filetype
left.gif 4 KB IrfanView GIF File
menu.html 1 KB HTML-file
Selected 1 file with 4342 bytes.
Remote Site: /usr/local/html/
Filename Filesize Filetype
..
index.html 725 HTML-file
left.gif 3068 IrfanView G...
noframes.html 250 HTML-file
right.gif 4555 IrfanView G...
Selected 1 file with 3068 bytes.
Local Filename Size Direction Remote Filename Host
Ready

By default (when opening), the header takes 10% of the available screen. Therefore, the height of the image should not exceed 27 px for a standard screen resolution (1024x768px), otherwise a scrollbar will appear.
The width of the left and right images should be similar, otherwise the system name will appear nearer to the smaller image.

## 16.4 Navigation

If you want to customise the navigation bar, you can do so by downloading a suitable file named ‘menu.html’ via the ‘Download HTML’ menu item or via FTP into the /usr/local/html folder of your novaWeb.


FileZilla - Connected to nWeb3 ss p (10.1.247.155)
File Edit Transfer View Queue Server Help
Address: User: Password: Port: Quickconnect
Response: 150 Opening ASCII mode data connection for /bin/ls.
Response: 226 Transfer complete.
Status: Directory listing successful
Command: TYPE I
Response: 200 Type set to I
Command: REST 0
Response: 350 Restarting at 0. Send STORE or RETRIEVE to initiate transfer.
Local Site: N:\nWeb\
nWeb
css
Img
nWeb Config
nWeb DataAcquisition
Remote Site: /usr/local/html/
Filename Filesize Filetype
css File Folder
Img File Folder
index.html 725 HTML-file
left.gif 4342 IrfanView G
menu.html 1767 HTML-file
noframes.html 250 HTML-file
nWeb Quick Start Guide... 12031 HTML-file
left.gif 4 KB IrfanView GIF File
menu.html 1 KB HTML-file
Selected 1 file with 1804 bytes.
Selected 1 file with 1767 bytes.
Local Filename Size Direction Remote Filename Host Status
Ready

### 16.4.1 Manual navigation bar

A typical example of a manual navigation bar including a link to an html document (e.g. a user manual) and another website (e.g. a webcam) looks like this:-

```
<><HTML>
<HEAD>
<TITLE>WDC Menu</TITLE>
<base target=”main”>
</HEAD>

<BODY>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=20” target=”main”>Login/
Logout</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=9” target=”main”>Control
loops</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=ahu01”
target=”main”>Air Handling Unit 01</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=ahu02”
target=”main”>Air Handling Unit 02</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=b01”
target=”main”>Boiler 01</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=b02”
target=”main”>Boiler 02</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=chb”
target=”main”>Chiller Basement</a><br>
<a href=”/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=counter”
```

```
target="main">Energy Counter</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=ircsflr01unit01"
target="main">ircsflr01unit01</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=ircsflr01unit02"
target="main">ircsflr01unit02</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=reg"
target="main">Samples</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=5&SYSTEM=test"
target="main">Test Function Blocks</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=10" target="main">Alarms</
a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=11" target="main">Event
List</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=103"
target="main">Service</a><br>
<a href="/cgi-bin/wdc.cgi?WDC-FUN=15"
target="main">Settings</a><br>
<a href="/nWeb_User_Manual.html" target="main">User Manual</
a><br>
<a href="http://webcam.sauter-headquarter.ch:8080"
target="main">Webcam SBA Installation</a><br>
</BODY> </HTML>
```

Basically, it is a list of links (<a ...</a>) to some novaWeb functions (href="...") which are supposed to be opened in the main frame (target="..."). This html page can be adapted to your needs by adding any links or other html elements.

### 16.4.2 Modifying an existing navigation bar

The best way to write a customised navigation bar is to copy the one that is automatically created by novaWeb and modify it according to your needs. Start your novaWeb without any menu.html in the /usr/local/html folder (delete or rename any existing one). Display the source of the navigation bar in your browser (Mozilla: Select the navigation frame, hit the right mouse button, select "This frame" and "View frame source". MS IE: Select the navigation frame, hit the right mouse button and select "View source").Copy the contents into your favourite editor (Wordpad, NVU, MS Frontpage,..) and modify it. As shown in the example above, you can add a link to any document on your novaWeb (just download it via the relevant link or via FTP to /usr/local/html) or to any other website (e.g. a web cam).

### 16.4.3 Additional link bar

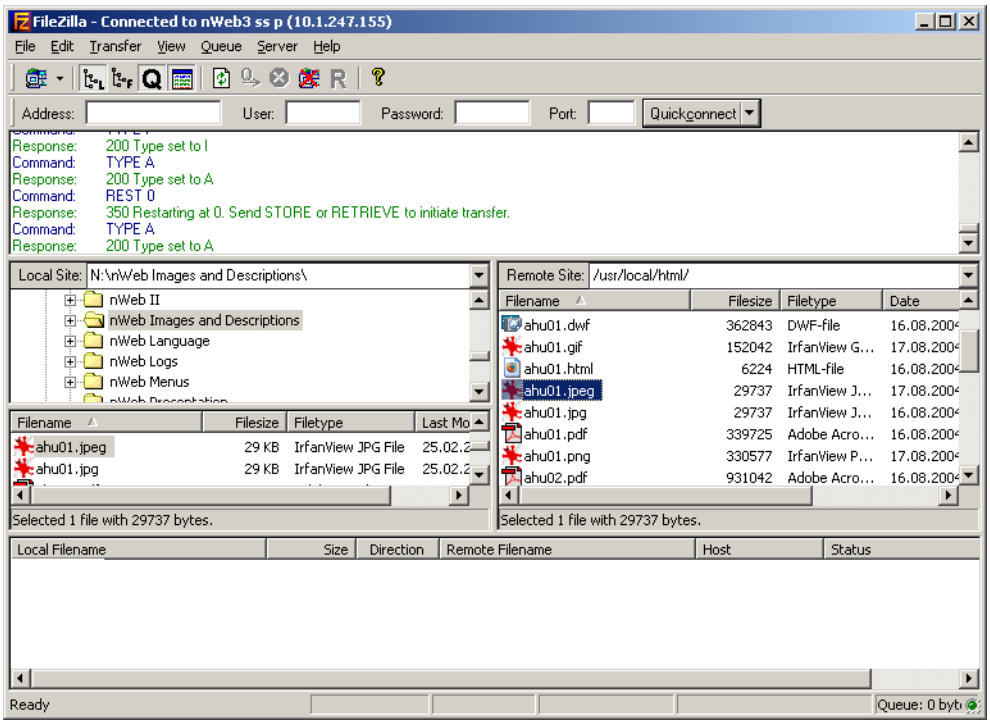
Another alternative is to use an additional link frame below the normal dynamic navigation frame. In this case, the frame on the left (navigation or content) is subdivided into the navigation (e.g. 80%) and the link frame.

```
<><frameset rows="20%,*">
    <frame name="header" scrolling="no" target="content"
```

```
src="/cgi-bin/wdc.cgi?WDC-FUN=19">
    <frameset cols="20%,*">
        <frameset rows="80%,*">
            <frame name="content" target="main" src="/cgi-
bin/wdc.cgi?WDC-FUN=45" scrolling="auto">
            <frame name="links" target="main" src="links.
html" scrolling="auto">
        </frameset>
    <frame name="main" src="/cgi-bin/wdc.cgi?WDC-FUN=9">
    </frameset>
The link.html file then just contains the additional links:
<>
<a href="/nWeb_User_Manual.html" target="main">User Manual</
a><br>
<a href="http://webcam.sauter-headquarter.ch:8080"
target="main">Webcam SBA Installation</a><br>
```

## 16.5 Functional description and schematics

You can add a functional description and several schematics to each installation page.


FileZilla - Connected to nWeb3 ss p (10.1.247.155)
File Edit Transfer View Queue Server Help
Address: User: Password: Port: Quickconnect
Response: 200 Type set to I
Command: TYPE A
Response: 200 Type set to A
Command: REST 0
Response: 350 Restarting at 0. Send STORE or RETRIEVE to initiate transfer.
Command: TYPE A
Response: 200 Type set to A
Local Site: N:\nWeb Images and Descriptions\
nWeb II
nWeb Images and Descriptions
nWeb Language
nWeb Logs
nWeb Menus
Filename Filesize Filetype Last Mo
ahu01.jpeg 29 KB IrfanView JPG File 25.02.2
ahu01.jpg 29 KB IrfanView JPG File 25.02.2
Selected 1 file with 29737 bytes.
Remote Site: /usr/local/html/
Filename Filesize Filetype Date
ahu01.dwf 362843 DWF-file 16.08.200
ahu01.gif 152042 IrfanView G... 17.08.200
ahu01.html 6224 HTML-file 16.08.200
ahu01.jpeg 29737 IrfanView J... 17.08.200
ahu01.jpg 29737 IrfanView J... 16.08.200
ahu01.pdf 339725 Adobe Acro... 16.08.200
ahu01.png 330577 IrfanView P... 17.08.200
ahu02.pdf 931042 Adobe Acro... 16.08.200
Selected 1 file with 29737 bytes.
Local Filename Size Direction Remote Filename Host Status
Ready
Queue: 0 byt

### 16.5.1 File types

Whenever a file with the name of an installation (first part of house address) and one of these extensions (htm, html, gif, png, jpeg, jpg, dwf or pdf) is found in the usr/local/html folder, the corresponding link will be shown in the header. Downloading to the relevant folder is simple, via the ‘HTML Download’ menu item or via FTP. Support for viewing html and graphic files (gif, png and jpeg) is

normally always included in the browser. For pdf and dwf files, the appropriate viewer must be installed for opening up the file.

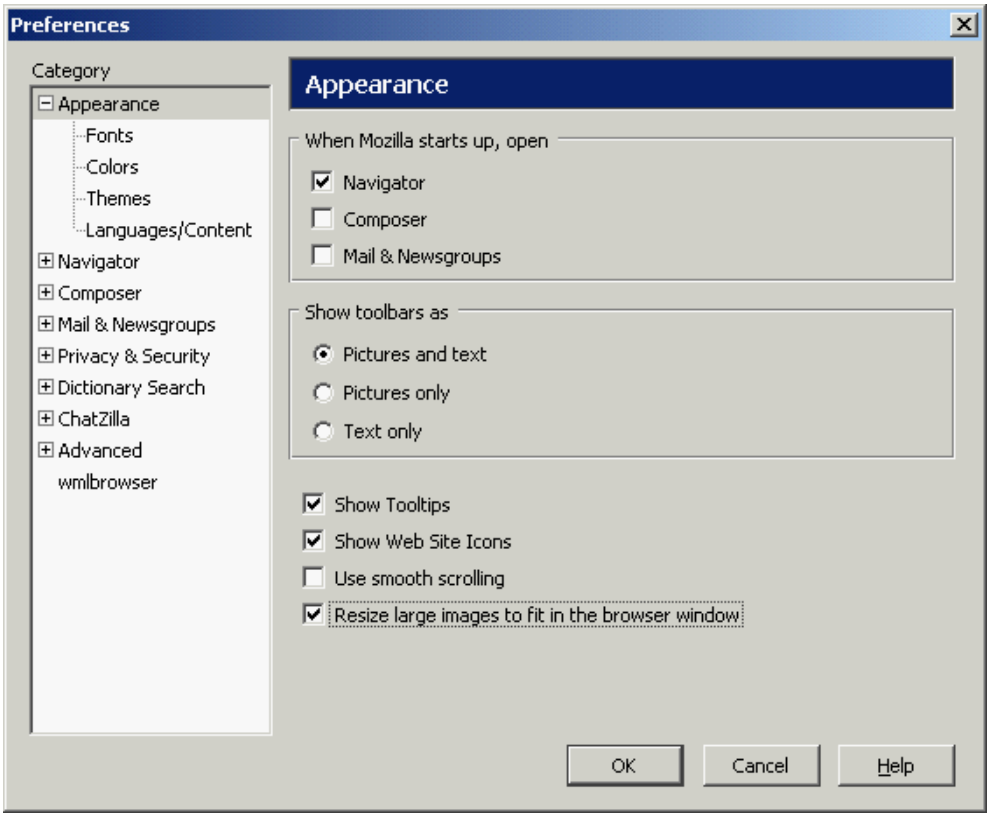
| Link | Extension | File Format | Use | Description | Viewer |
|---|---|---|---|---|---|
| Functional Description | htm/html | HyperText Markup Language | Texts | Any html document can be used to provide any assistance or help to the user. | - |
| Schematics | gif | Graphic Interchange Format | Schematics | Ideal for animated grafics and simple pictures (up to 256 colors) Compresses without loss. | - |
| | png | Portable Netork Graphics | Schematics & Pictures | Ideal for pictures with large areas of the same color | - |
| | jpeg/jpg | Joint Photographics Experts Group | Pictures | Ideal for real pictures (up to 16 Mio Colors) | - |
| | dwf | Autodesk Designer Web Format | Drawings | simlified CAD Drawings | Autodesk DWF Viewer (MS IE only) usa.autodesk.com |
| | pdf | Portable Document Format | Printable Documents | Based on the PostScript standard, documents are represented independently from the used soft- and hardware | Adobe Acrobat Reader www.adobe.com/products/acrobat/readstep2.html |

### 16.5.2 Image size

The size of an image that can be shown without scroll bars depends on various things. Firstly, on the size of the screen and the selected screen resolution (e.g. 1024x768,..). Secondly, on the operating system, the internet browser (e.g. MS IE, Mozilla etc.) and the bar shown (toolbar, status bar etc.). Finally, it also depends if you show the picture without frames (P910i with standard browser), within the normal frame or open it in a separate window. You can use the following table to add your own values.

With Mozilla-based browsers, it is also possible to resize larger images to fit in the corresponding frame by setting the relevant option under ‘Edit/Preferences/Appearance’.

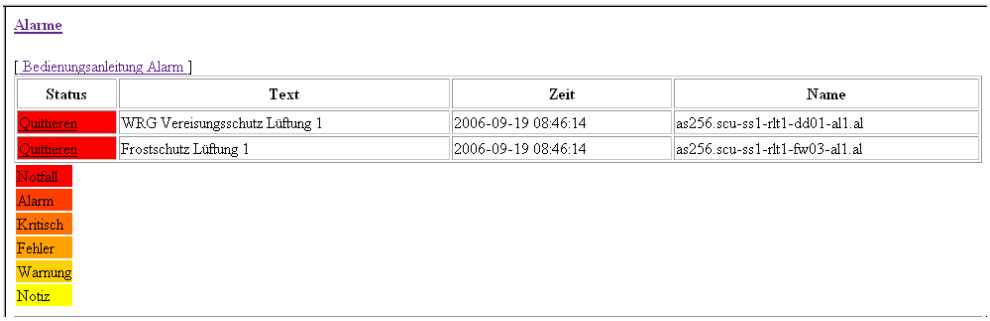
| Device | Screen Resolution | | Operating System | | Browser | | | Frames | Image | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Width | Height | System | Taskbar | | Toolbars | Statusbar | | Width | Height |
| SE P910I | 208 | 320 | Symbian | - | Standard | | | - | 207 | 227 |
| PC | 800 | 600 | Win 2000 | - | Mozilla | 3 (N, P, T) | x | x | 618 | 364 |
| | 1024 | 768 | Win 2000 | - | IE 6.0 | 2 | x | x | 795 | 530 |
| | 1024 | 768 | Win 2000 | - | Mozilla | 1 (N) | - | x | 797 | 588 |
| | 1024 | 768 | Win 2000 | - | Mozilla | 1 (N) | x | x | 797 | 566 |
| | 1024 | 768 | Win 2000 | - | Mozilla | 2 (N, P) | x | x | 797 | 544 |
| | 1024 | 768 | Win 2000 | - | Mozilla | 3 (N, P, T) | x | x | 797 | 516 |
| | 1024 | 768 | Win 2000 | 1 line | Mozilla | 3 (N, P, T) | x | x | 797 | 490 |
| | 1152 | 864 | Win 2000 | | Mozilla | 3 (N, P, T) | x | x | 899 | 601 |
| | 1280 | 1024 | Win 2000 | - | Mozilla | 3 (N, P, T) | x | x | 995 | 745 |
| | 1600 | 1200 | | | | | | | | |
| | | | | | | | | | | |




The same option for Internet Explorer seems not to work for frames.

## 16.6 Information on alarms

If a file named ‘alarm.html’ is found in novaWeb folder usr/local/html, a link designated ‘Alarm operating instructions’ is also shown in the main window near where the alarms are displayed.




If you call up the link, the text stored in file ‹alarm.html› is shown. This allows you to save information on the novaWeb (e.g. how to behave if alarms occur) and to make it accessible to everyone who accesses the novaWeb.

Downloading to the relevant folder is simple: either via the ‹HTML Download› menu item or via FTP.

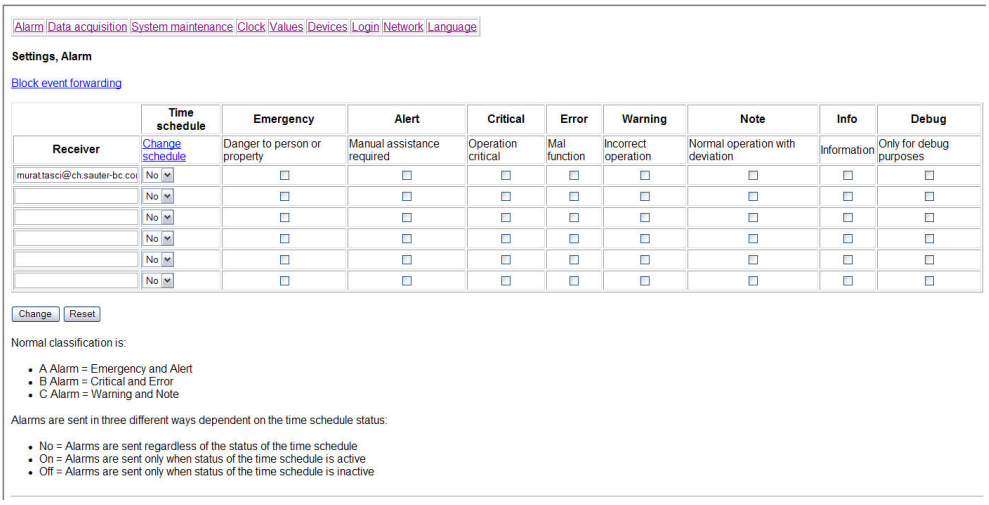
# 17 E-mail messages

novaWeb can be configured so as to send to up to six recipients an e-mail informing them that an alarm or event has occurred. Furthermore, historical data can also be transferred via e-mail based on a user-specific time setting. Access to this configuration is gained by calling up the ‘Settings’ menu item in the navigation bar and then the ‘Alarm’ or ‘Data acquisition’ menu item in the main window.

## 17.1 Alarm and event notification via e-mail

The ‘Settings’ table enables you to specify which recipient(s) are informed via e-mail of certain alarms (set according to alarm priority).

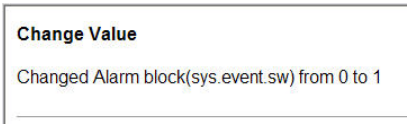
### 17.1.1 Settings and alarm




Alarms are sent in three different ways, depending on the time schedule status:-

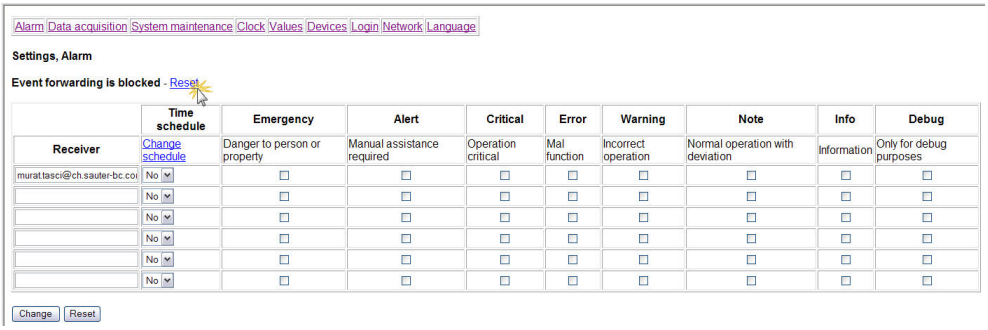
- No = Alarms are sent regardless of the status of the time schedule
- On = Alarms are sent only when status of the time schedule is active
- Off = Alarms are sent only when status of the time schedule is inactive

Call up the ‚Block ‚Event Forwarding‘ function to suppress sending of e-mails. If this function has been called up, the following confirmation will be shown.




This function is especially interesting during the commissioning process, when error messages occur more frequently or may even be triggered deliberately.

Call up the time programme page again, and you can use the reset function to cancel suppression of e-mail sending.

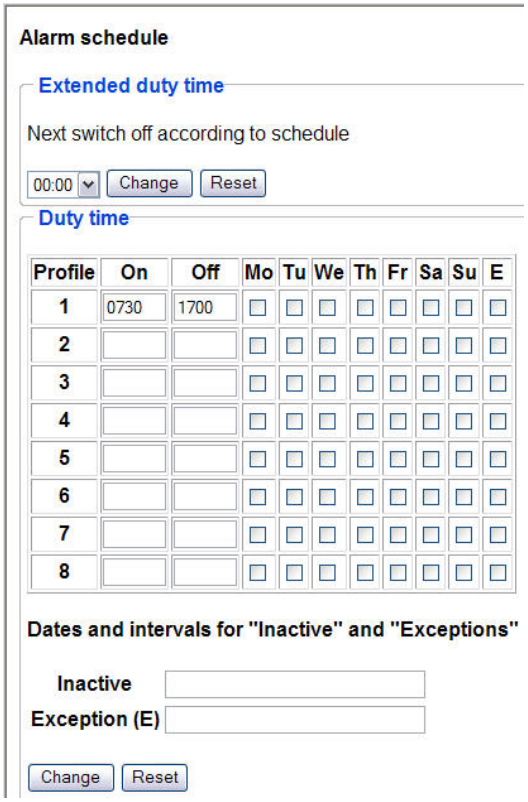



Cancelling the function is also confirmed by a message on the screen.

Suppression of mail sending is automatically cancelled after 3 hours. No message is shown on the screen in this case.

A time programme for e-mails can be parameterised. You can edit this program via the ‹Change time programme› link. Up to 8 time periods can be entered. This also lets you define periods of one or more days when the time programme is not active.

In addition, you can specify whether or not the time programme is valid for each individual recipient.




The e-mails can also be sent to a kind of unified messaging service, which can then forward the e-mail as an SMS, fax etc.

### 17.1.2 Header

The header can be treated by an automated e-mail client program. It contains the following information:-

- Subject
    - Alarm or event, system name or data point address
- X-Priority
    - The standard e-mail priority (normally indicated via a flag in your e-mail client)From 1 (highest) to 5 (lowest)
- X-WDC-DOM
    - novaWeb zone
- X-WDC-PRI
    - novaWeb priority (see alarm priority)
- X-WDC-EID
    - System name or data point address together with current state

As an example, a bus failure on the site VS Office could be sent like this:-
Subject: Alarm, VS/Office/sys.sauter.busfail
X-Priority: 3 (Normal)
X-WDC-DOM: SYS
X-WDC-PRI: ERR
X-WDC-EID: VS/Office/sys.sauter.busfail=1

### 17.1.3 Content

The content of the e-mail notification explains the error in a full text message like:- “novaNet Bus failure”

### 17.1.4 Adapting alarm messages

Die The subject line in the e-mail for alarms can be adapted. novaWeb checks whether a file named ‹sub_al.txt›, ‹sub_ok.txt› or ‹sub_ev.txt› is stored in novaWeb folder usr/local/etc. If a file with this name is present in this location, the text it contains is placed at the start of the subject line.

If an alarm occurs, the text in file ‹sub_al.txt› is used; for an ‹outgoing› alarm, the text in file ‹sub_ok.txt› is used. For other events when an e-mail is sent, the text in file ‹sub_ev.txt› is used.

These files can be downloaded to the novaWeb via FTP.
For example, if file ‹sub_al.txt› contains the text ‹Incident in plant: ‹, the subject line of the error message shown as an example above would now look like this.
Subject: Incident in plant: Alarm, VS/Office/sys.sauter.busfail

## 17.2 Data acquisition via e-mail

As a further option, the historical values of your novaWeb can be sent on a predefined time schedule to certain e-mail clients. Four different type of logs corresponding to the four historical charts cover either the last hour, the last day, the last week or the last quarter of the year.

### 17.2.1 Settings and data acquisition

| | Hours | Days | Weeks | Year |
|---|---|---|---|---|
| Receiver | 30-sec. values every hour | 5-min. values every day | hourly min,mean, max every week | daily min,mean, max every quarter |
| peter.hohm@ch.sauter-bc | ☑ | ☑ | ☑ | ☑ |
| | ☐ | ☐ | ☐ | ☐ |
| | ☐ | ☐ | ☐ | ☐ |
| | ☐ | ☐ | ☐ | ☐ |
| | ☐ | ☐ | ☐ | ☐ |

Remove all data acquisition on next restart

◉ No ○ Yes

If you changed some house addresses or removed entire data points, you can clear up the data acquisition table so as to prevent these values from continuing to appear there.

### 17.2.2 Header

Similar to the alarm and event notification, the data acquisition header contains some additional information which could be treated by an automated e-mail client: the subject details the type of log file; WDC-DOM specifies the domain (always SYS); the WDC-PRI gives you the priority (INFO); and the WDC-EID again specifies the site (e.g. <System name>), the type of e-mail (data acquisition) and the file name.
Subject: Data acquisition, <System name>/DAQ/K1LOG
WDC-DOM: SYS
WDC-PRI: INFO
WDC-EID: <System name>/DAQ/K1LOG

#### 17.2.2.1 Contents and attachment

The historical values are sent in the message and a csv file (comma-separated variables) is sent as an attachment. Depending on the type of log, it contains up to three values (mean, min. and max.) of a data point registered at a specified recording cycle over a certain period of time:-

| Chart | Time period | Recording Cycle | Mean Value | Min. Value | Max Value | File | Saved in | E-mail sent at |
|---|---|---|---|---|---|---|---|---|
| Hours | 1 hours | 30 sec | X | | | k1log | RAM | every hour (x:00) |
| Days | 1 days | 5 min | X | | | k2log | RAM | every day (00:00) |
| Weeks | 1 weeks | 1 hour | X | x | x | l1log | CF Card | every week (Mo 00:00) |
| Year | 1 quarter of a year | 1 day | X | x | x | l2log | CF Card | every quarter (01. Jan, Apr, Jul and Oct 00:00) |

#### 17.2.2.2 K-type log

| #dateTtime±zone | as15ahu01.supaircontr.ms | as15ahu01.supaircontr.cs | ... |
|---|---|---|---|
| 2004-01-27T14:00:30+0100 | 20.3 | 0.4 | |
| 2004-01-27T14:01:00+0100 | 20.4 | 0.5 | |
| 2004-01-27T14:01:30+0100 | 20.4 | 0.5 | |
| 2004-01-27T14:02:00+0100 | 20.2 | 0.5 | |

In the K1LOG and the K2LOG only the mean value is logged.

#### 17.2.2.3 L-type log

| #dateTtime±zone | ircsflr01unit01.fc.ms | ircsflr01unit01.fc.ms.min | ircsflr01unit01.fc.ms.max | ... |
|---|---|---|---|---|
| 2004-03-01T01:00:00+0100 | -74.0265 | -74.0439 | -73.9297 | |
| 2004-03-01T02:00:00+0100 | -74.0287 | -74.0439 | -73.9868 | |
| ... | | | | |

Apart from the mean value, the minimal and maximum values are also logged in L1LOG and L2LOG for extended accuracy.

#### 17.2.2.4 Saving

If you edit this e-mail message manually, you should open the message and save the attachment in a folder where you intend processing it further. According to your needs, you should rename it to specify e.g. the site, the time period and so on.

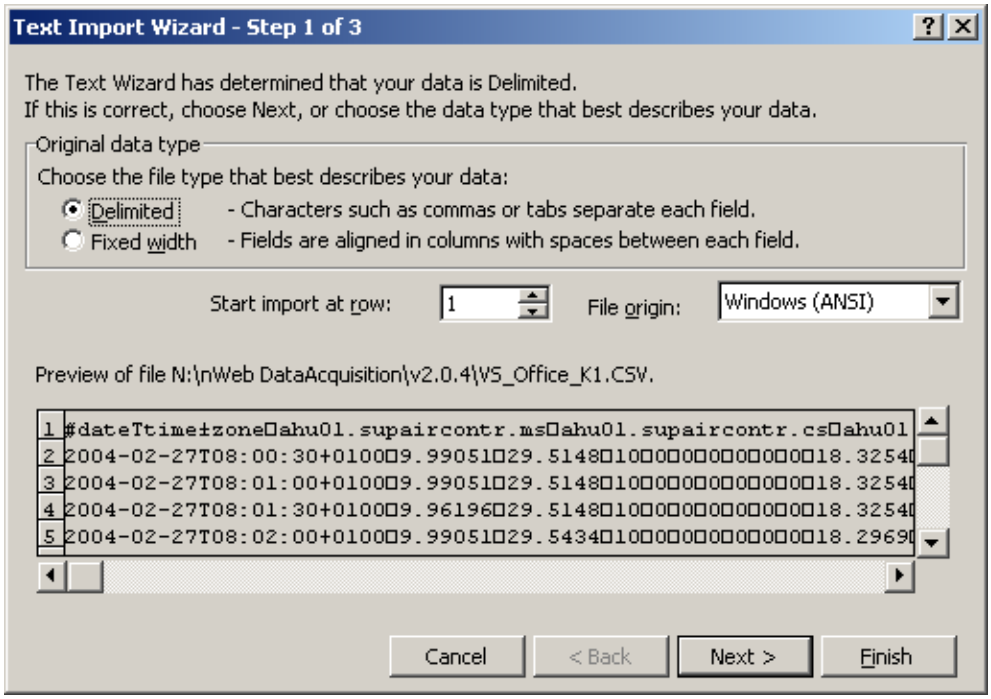
## 17.3 Processing of data acquisition files

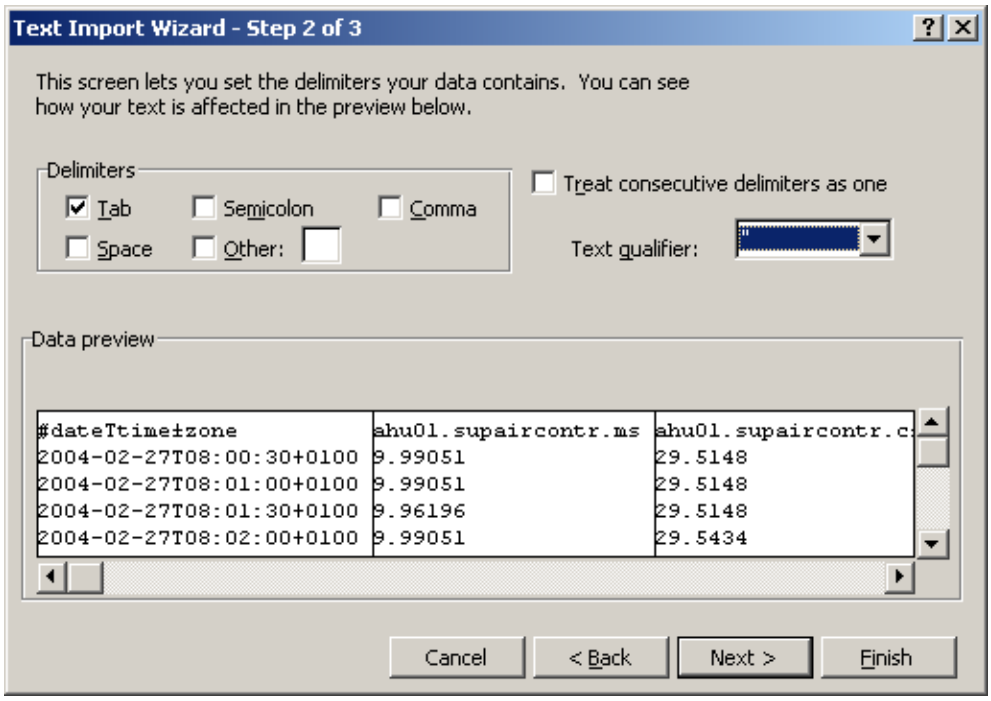
### 17.3.1 Standard spreadsheet programs

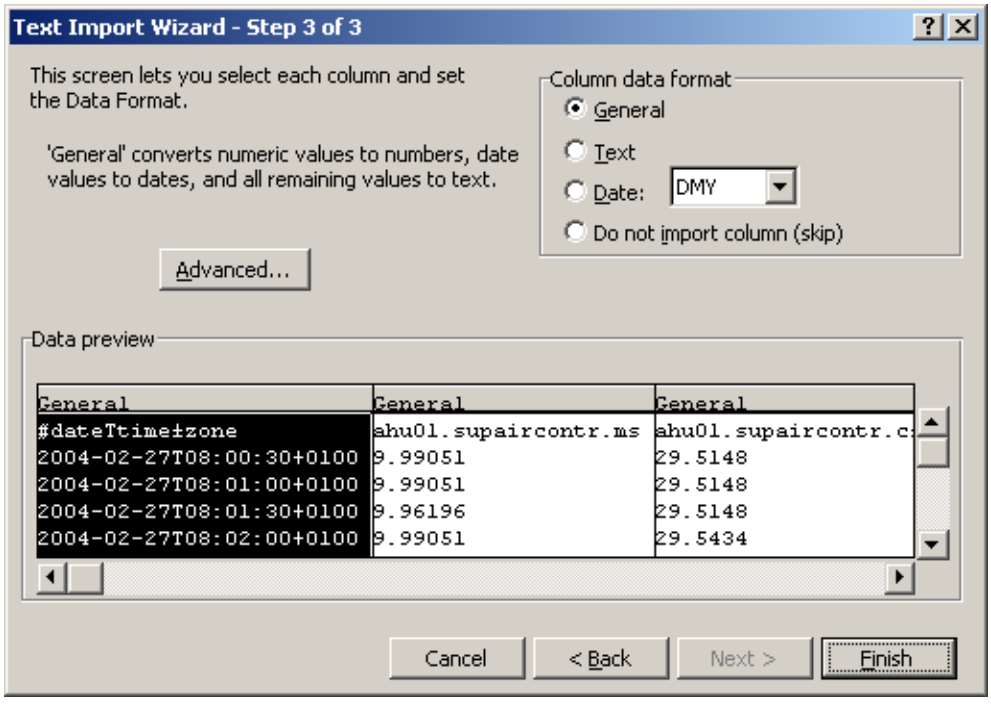
A further possibility is to use a standard spreadsheet program such as MS Excel or OpenOffice Calc. In this case, you have to import and edit the data manually. Since the data is recorded as a tab-delimited table, you have to open or import it accordingly.

### 17.3.2 MS Excel

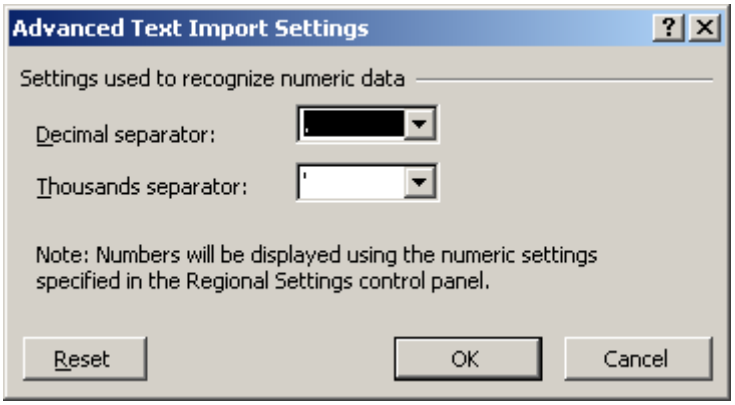
If you want to open these messages with MS Excel, you should change the extension to .txt (otherwise MS Excel tries to open them with default csv options, which do not work). Alternatively, you can import the data into an existing table via “Data/Get External Data/Import Text File...”. In both cases, the text import wizard will guide you through the procedure.


Text Import Wizard - Step 1 of 3
The Text Wizard has determined that your data is Delimited.
If this is correct, choose Next, or choose the data type that best describes your data.
Original data type
Choose the file type that best describes your data:
Delimited - Characters such as commas or tabs separate each field.
Fixed width - Fields are aligned in columns with spaces between each field.
Start import at row: 1
File origin: Windows (ANSI)
Preview of file N:\nWeb DataAcquisition\v2.0.4\VS_Office_K1.CSV.
1 #dateTtime±zone□ahu01.supaircontr.ms□ahu01.supaircontr.cs□ahu01
2 2004-02-27T08:00:30+0100□9.99051□29.5148□10□0□0□0□0□0□0□0□18.3254
3 2004-02-27T08:01:00+0100□9.99051□29.5148□10□0□0□0□0□0□0□0□18.3254
4 2004-02-27T08:01:30+0100□9.96196□29.5148□10□0□0□0□0□0□0□0□18.3254
5 2004-02-27T08:02:00+0100□9.99051□29.5434□10□0□0□0□0□0□0□0□18.2969
Cancel
< Back
Next >
Finish




Using the ‘Advanced’ button, you can verify the settings for numeric data separators.


Advanced Text Import Settings
Settings used to recognize numeric data
Decimal separator:
Thousands separator:
Note: Numbers will be displayed using the numeric settings specified in the Regional Settings control panel.
Reset
OK
Cancel

#### 17.3.2.1 Date and time

In order to be able to use the date and time information of novaWeb, the first column (date and time) has to be converted into standard Excel date format. The standard novaWeb date and time comprises the date, a ‘T’ as a separator, the time and the time zone information (e.g. +0100 for GMT + 1 hour):-
2004-02-02T17:27:30+0100
If you need the date and time in the standard Excel date format, you have to convert them either manually or via a macro as follows:-

Remove time zone information (+0100)

Replace ‘T’ by a blank

# 18 Clock settings

If novaWeb is connected directly to the internet (and the ntp protocol can pass the firewall), it can automatically get its time via the network time protocol from an internet time server. A list of public ntp time servers can be found at http://ntp.isc.org/bin/view/Servers/WebHome. Please take care to select a time server with an open access policy and to send a notification message to the timekeeper if requested.
Within an intranet (e.g. a company network), you can also use your own ntp server (e.g. a Linux server with the task time configured in inetd.conf).

Alternatively, it is also possible to set the clock manually to the correct time.

Follow the ‘Settings’ link in the navigation window and then the ‘Time’ link in the main window to go to the input screen for setting the time.

# 19 Software update

Call up the 'Settings' link in the navigation window, then the 'System maintenance' link in the main window

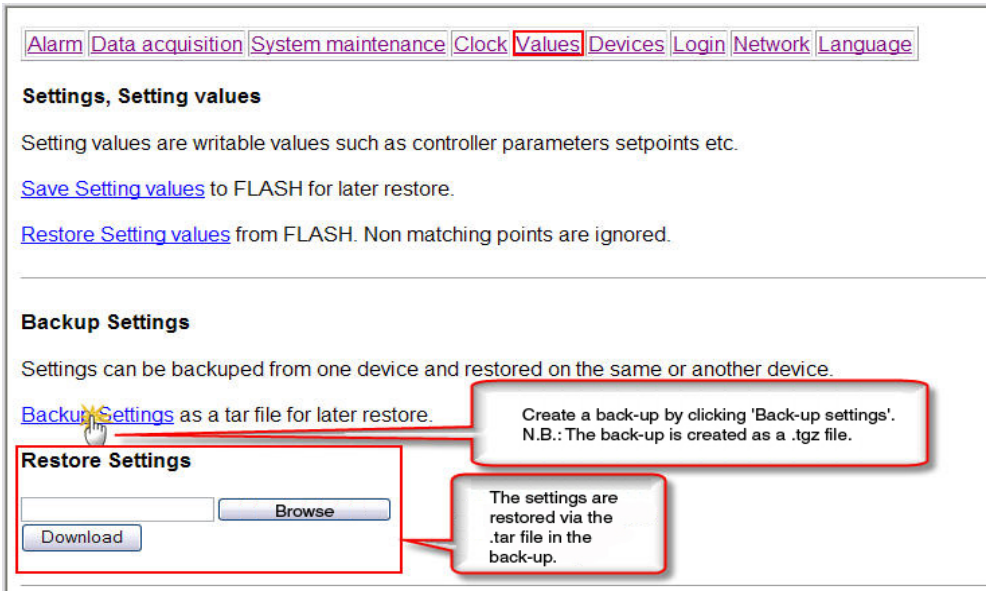
Now you can download the latest software versiion for the novaWeb. Contact your local customer service to obtain the file representing the latest software versiion.

Software update

# 20 Back-up

## 20.1 Create a back-up

- In the 'Values'-tab, click 'Back-up settings'.
- The ‚Tile download‘ menu then opens.
- Click 'Save‘ in the 'File download‘ menu.


Alarm
Data acquisition
System maintenance
Clock
Values
Devices
Login
Network
Language
Settings, Setting values
Setting values are writable values such as controller parameters setpoints etc.
Save Setting values to FLASH for later restore.
Restore Setting values from FLASH. Non matching points are ignored.
Backup Settings
Settings can be backuped from one device and restored on the same or another device.
Backup Settings as a tar file for later restore.
Create a back-up by clicking 'Back-up settings'.
N.B.: The back-up is created as a .tgz file.
Restore Settings
Browse
Download
The settings are restored via the .tar file in the back-up.

Dateidownload
Möchten Sie diese Datei öffnen oder speichern?
Name: wdc-bup.tgz
Typ: WinZip File
Von: 10.10.10.11
Öffnen
Speichern
Abbrechen
Vor dem Öffnen dieses Dateityps immer bestätigen
Dateien aus dem Internet können nützlich sein, aber manche Dateien können eventuell auf dem Computer Schaden anrichten. Öffnen oder speichern Sie diese Datei nicht, falls Sie der Quelle nicht vertrauen. Welches Risiko besteht?

## 20.2 Restore back-up

A back-up is strored as a '.tgz' file, but a '.tar' file is needed for a restore, so take the following steps in order to convert the '.tgz' file into a '.tar' file.

- Open the '.tgz' file using Winzip
- Answer the question "Should WinZip decompress...." with 'NO'.
- Drag and drop the '.tar^file to a place of your choice
- Carry out a restore with the created '.tar' file using 'Restore settings'.

# 21 Notes

## 21.1 Number of ASs

novaWeb can visualise up to 32 ASs. It can even be used in bigger projects, but, in this case, you have to select the ASs that you want to visualise.

## 21.2 Modifying analogue output signals

For security reasons, it is not possible to modify analogue (AO function block) output signals directly. These should be modified, for instance, with an EYT 240 when on site.

## 21.3 Time programs

The state of the novaWeb time program data points (***.tc***) is constantly checked to being in the right position. If a switching command for a novaWeb time programme data point (.tc) is pending, it is executed one single time. After this, if a switching command is sent to this data point from another source (e.g. the AS time programme) or from another display system (novaPro32, novaPro Open, the EYT 240 system panel or the EYT 250 touch-panel), the switching command that was most recently sent by novaWeb is overwritten.

## 21.4 Time program levels

For ease of use, the time programs (extension ***.tc***) are limited to on/off switching.

## 21.5 Digital feedback

novaWeb shows only either the current stage or the current working mode. It cannot show both items of one function block or data point. For digital indication (***.di*** or ***.do***), the current stage will be shown (e.g. 0,1,2,..) within the second column (Status) of the system view. For a switch, either ‘Auto’ is shown to indicate that the switch is in automatic mode, or the current stage is shown in forced mode (in the third column: ‘Command’).

## 21.6 Automatic mode for analogue data points

It is not possible to change the working mode of an analogue data point (AIA_ Soft or AO) into automatic mode, nor will the working mode (automatic, local or remote) be shown.

## 21.7 Local mode

The local mode (feedback that an analogue or digital output is commanded locally) will not be indicated.

### 21.8 Switching to automatic mode for digital data points

If a digital data point (DIA_Soft, DO,.) is configured as switch able (Extension ***.sw*** and CP as Command) it will always be possible to switch it to automatic mode even if this is not configured in the AS.

### 21.9 AS or ecos groups

Working with AS groups has some limitations. First of all, since all address text are the same for a data point within the group, it is not possible to use an address text for the installation (it would be the same for all members of the group and, therefore, you would have x times the same entry in the navigation bar). Secondly, since only the address text is shown, e.g. in the control loops page, it is sometimes difficult to distinguish to which AS this data point belongs (for the control loops page, you can add a data point with the "***di***" extension, which is always off, in order to specify that this control loop will not be shown on the control loop overview page).

### 21.10 Multiple novaWebs on one novaNet

Since novaWeb uses a fix novaNet address (31777), only one novaWeb is currently allowed on a novaNet.

### 21.11 Cold and warm starts

If you have logged in at 'Service' or 'System Maintenance' level, you can implement a cold or hot start for novaWeb, or you can 'stop' novaWeb. Follow the 'Settings' link in the navigation window and then the 'System Maintenance' link in the main window to reach the following selection options.

You can stop the system by pressing the relevant button. This means that novaWeb will no longer save any data, and communication with the automation stations is suspended. To disable this function again, you have to restart the application (using the appropriate button, ‹Restart application›) or you can reboot novaWeb (using the ‹Reboot System› button).

Restarting the application corresponds to warm-starting novaWeb, and booting novaWeb means performing a cold start for novaWeb.

# 22 FAQs

## 22.1 Data point not shown

If a house address has been specified for a data point, the data point will be shown at least in the service list. However, if no card code is set for this MFA (e.g. after removing a card), the data point will not be shown.

## 22.2 Command (sw) appears as feedback

If a command (e.g. a DIA_Soft or a DO which is configured as "***sw***") appears as a feedback (without the possibility to command), the reason could be a missing or incorrect CP release (Parameter CPB2 in function block DO or DIA_Soft)

## 22.3 Counter data point (.met) behaves strangely

If the extension "***.met***" is used for a data point, the novaWeb does not display this data point directly but automatically calculates and shows the current 'hourly' value. For instance, if the "***.met***" data point indicates the energy (kWh), the novaWeb will show the power (kW). Instead of an amount (e.g. Litre l), it will indicate the flow (l/h).

FAQs

# 23 Abbreviations and terminology

| Abbreviations | Explanation |
|---|---|
| AS | Automation Station and controller are autonomous automation devices for the control of heating, air-conditioning or other systems in buildings |
| DNS | In a Domain Name System, one or several servers store and provide some information like the IP addresses of each host and the mail exchange servers |
| DW | DataWord (numbered 0 to 127) of one MFA |
| FBD | Function Block Diagram is a standardised type of chart for a function plan (plus the Sauter program to create it) |
| HTML | HyperText Mark-up Language is a mark-up language for web pages (links are marked up) |
| IP | Internet Protocol is the standard network layer protocol for network communication |
| MFA | Data point address (numbered 0 to 127 or 255 depending on the type of AS) within an AS |
| TCP | Transmission Control Protocol is a connection-orientated transport layer protocol for network communication, normally working over IP as network layer |

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